
**DISTRICT OF COLUMBIA
MUNICIPAL SEPARATE STORM
SEWER SYSTEM (MS4) PROGRAM
INSPECTION REPORT**

July 2014

**U.S. Environmental Protection Agency, Region III
Water Protection Division
Office of NPDES Enforcement (3WP42)
1650 Arch Street
Philadelphia, PA 19103**

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EXECUTIVE SUMMARY

From May 6 through 8, 2013, a compliance inspection team comprising of staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, Eastern Research Group, Inc. (ERG), collectively referred to as the "EPA Inspection Team", inspected the municipal separate storm sewer system (MS4) program implemented by District Department of the Environment for the District of Columbia (DC).

The purpose of this inspection was to obtain information that will assist EPA in assessing DC's compliance with the requirements of its National Pollution Discharge Elimination System Permit Number DC0000221, as well as the implementation status of its current MS4 Program.

Based on the information obtained and reviewed, EPA's compliance inspection team made several observations concerning DC's MS4 program related to the specific permit requirements evaluated. Table 1 below summarizes the permit requirements and the observations made by the inspection team.

Table 1. Summary of Permit Requirements and Inspection Observations

Observations	
2.2 Fiscal Resources	Observation 1: It appears that all agencies and departments of the District may need to evaluate finances, staff, equipment, and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit.
4.2.1 District Owned and Operated Practices	<p>Observation 2: It appears that DC is not coordinating compliance activities among agency partners to implement the provisions of the Permit.</p> <p>Observation 3: At the time of the inspection, DC had not implemented operation and maintenance protocols for stormwater capture practices at municipal facilities.</p> <p>Observation 4: At the time of the inspection, DC inspectors did not consistently follow standard operating procedures for conducting inspections of stormwater capture practices.</p>
4.2.2 Non-District Owned and Operated Practices	Observation 5: It appears that DDOE has not maintained a complete, electronic inventory of practices located on private property that includes O&M verification information.
4.3.3 Vehicle Maintenance/Material Storage Facilities/ Municipal Operations	Observation 6: At the time of the inspection, DC was not implementing stormwater pollution prevention measures at its municipal facilities including vehicle maintenance operations.

Table 1. Summary of Permit Requirements and Inspection Observations

Observations	
4.3.7 Infrastructure Maintenance/Pollution Source Control Maintenance	<p>Observation 7: At the time of the inspection, DC was not implementing a maintenance program that incorporates good housekeeping components at all of its municipal facilities.</p> <p>Observation 8: At the time of the inspection, DC had not implemented an inspection schedule to perform inspections at least once per calendar year at all municipal facilities to determine if maintenance standards are being met.</p>
4.3.10 Municipal Official Training	Observation 9: At the time of the inspection, DC was not implementing a training program for employees at municipal facilities whose job functions may impact implementation of the stormwater program.
4.4. Management of Commercial and Institutional Areas	Observation 10: It appears that DC has not established and implemented policies and procedures to reduce the discharge of pollutants in stormwater runoff from all commercial and institutional (including federal) areas covered by this permit.
4.4.1 Inventory of Critical Sources and Source Controls	Observation 11: It appears that DC is not maintaining, including minimum fields of information, or annually updating a comprehensive watershed-based inventory or database of all facilities within its jurisdiction that are critical sources of stormwater pollution.
4.4.2 Inspection of Critical Sources	Observation 12: It appears that DC is not ensuring that inspections of critical sources will occur twice during the permit term.
4.4.3 Compliance Assurance	Observation 13: It appears that DC is not verifying that operators of all critical source facilities are implementing control strategies to protect water quality.
4.5 Management of Industrial Facilities and Spill Prevention	Observation 14: It appears that DC is not implementing a program to monitor and control pollutants from all industrial facilities.
4.6.1 Reduce the Discharge of Pollutants from Construction Site	Observation 15: At the time of the inspection, DC did not identify non-sediment issues during construction site inspections.
4.6.3 Construction Site Inspection and Enforcement	Observation 16: At the time of the inspection, DC was not identifying all erosion and sediment control issues during construction site inspections.

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INTRODUCTION

From May 6 through 8, 2013, a compliance inspection team comprising staff from the U.S. Environmental Protection Agency (EPA) Region 3 and EPA's contractor, Eastern Research Group, Inc. (ERG), collectively referred to as the "EPA inspection team", inspected the municipal separate storm sewer system (MS4) program of the District of Columbia (DC). Discharges from DC's MS4 are regulated by the National Pollution Discharge Elimination System Permit Number DC0000221 (the Permit), which is included in Appendix 1. DC personnel accompanied the EPA inspection team on some of these inspections.

The purpose of this MS4 inspection was to obtain information that will assist EPA in assessing DC's compliance with the requirements of the Permit, as well as the implementation status of its current MS4 Program. The inspection schedule is presented in Appendix 2.

The EPA inspection team obtained information through a series of interviews with representatives from DC, site visits, record review, and field verification activities. The primary representatives involved at the time of the inspection included the following:

District Department of
the Environment
(DDOE)

Representatives:

The Natural Resources Administration (NRA)

Mr. Hamid Karimi, Deputy Director

Mr. Ibrahim Khatib, IEB Supervisor

Natural Resources Administration – Storm Water Management Division

Mr. Jonathan Champion, Branch Chief - Planning and Reporting

Mr. Michael DeVito, Environmental Protection Specialist

Ms. Kate Judson, Environmental Protection Specialist

Mr. Jeff Seltzer, Associate Director

Mr. Young Tsuei, Geographic Information Systems Analyst

Mr. Brian VanWye, Branch Chief - Program Implementation

Natural Resources Administration – Water Quality Division (WQD)

Mr. Collin Burrell, Associate Director

Mr. Adion Chinkuyu, Environmental Protection Specialist

Mr. Kidon Cho, Environmental Protection Specialist

Mr. Ibrahim Famuditimi, Environmental Protection Specialist

Mr. Teamrat Gebremedhin, Environmental Protection Specialist
(Planning and Enforcement Branch)

Mr. Matt Robinson, Environmental Protection Specialist

Mr. Jacob Zangrilli, Environmental Protection Specialist (Planning
and Enforcement Branch)

District Department of
the Environment
(DDOE)

Representatives (cont.): **Natural Resources Administration – Watershed Protection
Division (WPD)**
Mr. Pamphile Akpata, Construction Site Inspector
Ms. Sheila Besse, Associate Director
Mr. Walter Caldwell, Stormwater Capture Practice Inspector
Mr. Tim Karikari, Branch Chief
Mr. Peter Nwangwu, Construction Site Inspector
Mr. Lawrence Omoregbe, Environmental Engineer (Inspection and
Enforcement Branch)
Ms. Rebecca Stack, Low Impact Development Specialist
Ms. Nicoline Shulterbrandt, Supervisor Environmental Protection
Specialist

District Department of
Transportation
(DDOT)

Representatives: Ms. Julie Banks, Facility Manager
Ms. Carmen Franks, Civil Engineer
Mr. Frank Pacifico, Program Manager
Ms. Meredith Upchurch, Stormwater Low Impact Development
Team Lead

EPA Representatives: Mr. Andy Dinsmore, Enforcement Officer
Ms. Kyle Zieba, Enforcement Officer
Ms. Kaitlin McCann, ORISE Fellow

EPA Contractors: Ms. Kavya Kasturi, ERG
Ms. Lauren Scott, ERG
Ms. Daisy Wang, ERG
Ms. Kathleen Wu, ERG

For a complete list of all inspection participants, please refer to the sign-in sheets in Appendix 3.

During the inspection, the EPA inspection team obtained documentation regarding MS4 program implementation as required by the Permit. Pertinent information may have been obtained prior, and/or after meeting with DC staff during the physical inspection, and is presented in this report as observations. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation. All referenced documentation is provided in Appendix 4 and photographs taken during the inspection are provided in Appendix 5. A complete list of documents obtained is provided as a Document Log in Appendix 6.

This report identifies Permit requirements with specific sections cited and observations made as part of this inspection activity. The format of the report follows the numeric system used in the

Permit and is sequential. Sections of the permit are restated with observations from the inspection activities about those requirements listed below.

DISTRICT OF COLUMBIA (DC) BACKGROUND

DC has been developing and implementing its MS4 Program since 2005. DC's coverage under its current permit became effective on January 22, 2012, and an expiration date of October 7, 2016. A permit modification was effective on November 9, 2012 based on a decision made by EPA's environmental appeals board in response to various lawsuits.

DC encompasses approximately 43,712 acres of land, and is bordered on the northwest by Montgomery County, Maryland, on the east by Prince George's County, Maryland, and on the southwest by the Potomac River. The MS4 discharges into the Potomac and Anacostia Rivers. The city has three watersheds: Rock Creek, Anacostia, and Potomac. The MS4 does not encompass the entire area within the DC boundary. A central portion of DC has a combined sewer system (CSS), which is not a part of the MS4 (see Exhibit 1 in Appendix 4). DC stated that they did not distinguish between the MS4 and CSS when implementing their stormwater programs. The majority of inspections and observations noted in this report were from areas within the MS4.

Currently, DDOE has approximately 45 staff including 14 inspectors to implement the MS4 program. DDOE receives revenue from the Stormwater Permit Compliance Enterprise Fund, which provided \$12,369,731 to fund the MS4 program in the 2012 fiscal year. DDOE also receives revenue from the Anacostia River Cleanup and Protection Fund, which provided \$2,061,844 to fund the MS4 program in the 2012 fiscal year. DDOE had an MS4 permit compliance budget of \$11,858,000 for the 2013 fiscal year.

INFORMATION OBTAINED RELATIVE TO PERMIT REQUIREMENTS

Dry and wet weather conditions were experienced during the inspection activities. The weather history reports indicated that 0.01 inches of rain on May 6, 2013, 0.02 inches of rain on May 7, 2013, and 1.01 inches of rain was received on May 8, 2013. The weather history reports indicated that 0.01 inches of rain had fallen in the three days prior to the inspection and approximately 0.65 inches had fallen in the three days following the inspection¹.

Section 2.2 Fiscal Resources

The permittee, including all agencies and departments of the District as specified in section 2.3 below, shall provide adequate finances, staff, equipment and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit. For the core program the permittee shall provide a dedicated funding source. Each annual report under Part 6 of this permit shall include a demonstration of adequate fiscal capacity to meet the requirements of this permit.

¹ The precipitation data for the District of Columbia, Station Washington 5.1 NW was downloaded from the National Oceanic and Atmospheric Administration's (NOAA) National Climatic Data Center (NCDC) – Climate Data Online (CDO) System on June 17, 2013, Available online: <http://www.ncdc.noaa.gov/cdo-web/#t=secondTabLink>.

Observation 1: It appears that all agencies and departments of the District may need to evaluate finances, staff, equipment, and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit. While DDOE has dedicated funding sources to implement the SWMP, other District agencies listed in Section 2.3.1 of the Permit, responsible for complying with elements of the Permit within its jurisdictional scope and authorities did not.

The inspection team was informed that DDOE//NRA/WQD has recently hired an inspector to conduct Multi-Sector General Permit (MSGP) inspections as of April 29, 2013, and did not have anyone in that role since the beginning of the permit term due to funding limitations.

Additionally, at the time of the inspection, DDOE's Watershed Protection Division (DDOE/NRA/WPD) did not have staff to fully support its public and private stormwater capture practice maintenance inspections. DDOE/NRA/WPD staff said that all practices should be inspected every three years. Section 5.3.4 of DC's "Stormwater Guidebook" states that preventative maintenance inspections will occur "twice ever year during the first five years of operation and at least once every two years thereafter" (see Exhibit 2 in Appendix 4). DDOE/NRA/WPD staff stated that there are two inspectors that focus on stormwater retention practice maintenance inspections. One is the primary stormwater capture practice inspector, and the other inspector, who was recently hired, focuses on low impact development (LID) practices. DDOE/NRA/WPD occasionally asks inspectors who regularly inspect E&S practices on construction sites to inspect stormwater capture practices.

A DDOE/NRA/WPD representative stated that their inspection schedule had been on track up until 2004, when the number of construction projects increased significantly and the number of inspectors decreased. Currently, DDOE/NRA/WPD has inspected all practices with final approval dates through 2004; however, there are some practices constructed after 2004 that have never been inspected. Based on DDOE/NRA/WPD's maintenance records, prior to 2004, DC conducted 642 inspections (see Exhibit 3 in Appendix 4). It is unclear if these inspections were of entire sites or individual practices; DDOE/NRA/WPD's spreadsheet of maintenance inspections performed prior to 2004 appears to list WPD numbers for sites and sub-WPD numbers for specific practices (see Exhibit 3 in Appendix 4). From 2004 to current, 1,223 sites were inspected; DDOE/NRA/WPD's spreadsheet of maintenance inspections performed in and after 2004 appears to list only WPD numbers for sites (see Exhibit 4 in Appendix 4). In the latter spreadsheet, there are often multiple practices that were inspected at each site. These two spreadsheets show that that there are sites which have been inspected before and after 2004, such as the Rite Aid Pharmacy Food Mart site located at 1401 Rhode Island Avenue, NE Washington DC.

DC estimates that they have between 3,000 and 5,000 stormwater capture practices. DDOE/NRA/WRP staff said that they do not know the exact number of practices that they have already inspected, or how many are in their universe of practices.

The EPA inspection team was informed that DDOE/NRA/WRP plans to hire a new inspector in fiscal year 2014. Currently, the staff places the highest priority on requests received from contractors who perform maintenance work and these inspection requests drive the inspection schedule. After prioritizing inspection requests, the staff attempts to inspect sites in chronological order starting with those that received final approval in 2005.

Section 2.3 Stormwater Management Program Administration/Permittee Responsibilities

Section 2.3.2

DDOE shall coordinate, and all agencies, offices, departments and authorities shall implement provisions of the existing MS4 Task Force Memorandum of Understanding (MOU) dated 2000, updated matrix of responsibilities (January 2008), and any subsequent updates; the MOU between DDOE and DC Water (2012) and any subsequent updates; and other institutional agreements to coordinate compliance activities among agency partners to implement the provisions of this permit. DDOE's major responsibilities under these MOUs and institutional agreements shall include:

1. Convening regular meetings and communication with MS4 Task Force agencies and other committees established to implement this permit to budget, assign and implement projects, and monitor, inspect and enforce all activities required by the MS4 permit.
2. Providing technical and administrative support for the MS4 Task Force and other committees established to implement this permit
3. Evaluating, assessing, and synthesizing results of the monitoring and assessment programs and the effectiveness of the implementation of management practices and coordinating necessary adjustments to the stormwater management program in order to ensure compliance.
4. Coordinating the completion and submission of all deliverables required by the MS4 Permit.
5. Projecting revenue needs to meet MS4 Permit requirements, overseeing the District's stormwater fees to fulfill revenue needs, and coordinating with DC Water to ensure the District's stormwater fee is collected.
6. Making available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.

Observation 2: It appears that DC is not coordinating compliance activities among agency partners to implement the provisions of the Permit. On May 6 and 7, 2013, the EPA inspection team visited five of DC's municipally-owned facilities managed by three different sister agencies: DGS, DDOT, and

DPW (see Observation 7 below). Facility personnel at four of the five sites were unaware of the requirements in Section 4.3 of the Permit. The EPA inspection team did not meet with facility personnel at the fifth site. A recently hired Environmental Protection Specialist with DDOE/NRA/SWMD stated that his job responsibilities included coordinating with all agencies, offices, departments and authorities to meet permit requirements.

Section 4.2 Operation and Maintenance of Stormwater Capture Practices

Section 4.2.1 District Owned and Operated Practices

Within two years of the effective date of this permit, develop and implement operation and maintenance protocols and guidance for District-owned and operated on-site retention practices (development and retrofits) to include maintenance needs, inspection frequencies, estimated maintenance frequencies, and a tracking system to document relevant information. Provide training to all relevant municipal employees and contractors, with regular refreshers, as necessary.

Observation 3: At the time of the inspection, DC had not implemented operation and maintenance protocols for stormwater capture practices at municipal facilities. A list of all DPW stormwater management facilities provided by DC indicated that none of the eleven DPW sites with stormwater management facilities (including the Benning Road Transfer Station) have maintained onsite stormwater capture practices (See Exhibit 5 in Appendix 4).

On May 6, 2013, the EPA inspection team visited DC's DDOT vehicle maintenance and salt storage facility located at 414 Farragut Street, NE Washington, DC. The EPA inspection team observed stormwater capture practices at this site which included three sand filters. The sand filter's maintenance doors and manholes were below grade (see Photographs 1 through 4 in Appendix 5), the concrete apron around one of the manholes was broken (see Photograph 4 in Appendix 5), and one was filled with water (see Photograph 5 in Appendix 5). The DDOE/NRA/WDP inspector stated that the sand filters had been buried as a result of prior work at the site. According to documents provided by DDOE, on May 28, 2010, after inspection by DDOE and finding significant issues in operation based on site changes, a maintenance notice was issued to DDOT directing them to: elevate the maintenance doors and manholes; expose a section of the underdrain for inspection; restore the sand filters to the original specifications; and power wash all inlets to and chambers of the sand filter (see Exhibit 7 in Appendix 4). DDOE's 2011 and 2012 inspection reports identified the same maintenance issues (see Exhibit 7 in Appendix 4). A work plan for the restoration of the sand filters was developed in 2011, but does not include any timeframe or documentation for the completion of the maintenance activities (see Exhibit 7 in Appendix 4).

Also, on May 6, 2013, the EPA inspection team visited DC's Fort Totten Transfer Station located at 4900 Bates Road, NE Washington, DC. The EPA inspection team observed stormwater capture practices at this location which included three Vortechs[®] systems. The DDOE/NRA/WRP inspector stated that he had requested the systems be serviced twice per year; however, the systems have only been serviced once since they were installed, approximately seven years prior to the EPA inspection. During the EPA inspection team's visit, the Vortechs[®] systems were filled with trash and debris and a sheen was observed on the water surface in the Vortechs[®] systems (see Photographs 6 through 9 in Appendix 5).

Observation 4:

At the time of the inspection, DC inspectors did not consistently follow their standard operating procedures (SOPs) for conducting inspections of stormwater capture practices. According to DC's SOP for "The Enforcement of Soil Erosion and Sedimentation Control and Storm Water Management Regulations", "...all available information including as-built Plans, approved SWM plan, plan approval general information sheet, and previous inspection reports, shall be review [sic] before visiting the site..." (see Exhibit 8 in Appendix 4). On May 7, 2013, the EPA inspection team shadowed DDOE/NRA/WRP inspectors during an inspection of the stormwater capture practices at Langdon Park Playground, located at 2901 20th Street, NE Washington, DC. The DDOE inspector told us that the site was inspected recently by a different inspector. During the inspection, the following practices were identified: three bioretention cells, an infiltration/exfiltration area, a bioswale, and a drainage swale. The inspector noted that the bioretention cell #3 was overgrown with invasive and volunteer trees and stated that it appeared the other inspector may not have recognized the cell as a bioretention area during the last inspection and only inspected the other two bioretention cells (see Photograph 10 in Appendix 5).

Records submitted to the EPA inspection team show that the practice was last inspected on May 21, 2012 (Exhibit 9 in Appendix 4). The inspection report notes that there are two bioretention cells and does not mention any of the other practices located on site. It appears that the inspector did not review site documentation to identify all practices at this site.

In addition, while on site, the DDOE/NRA/WRP inspector noted a swing set constructed on the infiltration area should not have been there (see Photograph 11 in Appendix 5). The EPA inspection team received a copy of the inspection report for the May 7, 2013 inspection, which did not include any comments about the infiltration area. Furthermore, the inspection report from May 7, 2013 states that the last inspection date was April 23, 2010, the first inspection conducted after the stormwater capture practice was constructed, while DC's records indicate the last inspection was conducted on May 21, 2012.

Section 4.2.2 Non-District Owned and Operated Practices

In conjunction with updating of relevant ordinances and policies, develop accountability mechanisms to ensure maintenance of stormwater control measures on non-District property. Those mechanisms may include combinations of deed restrictions, ordinances, maintenance agreements, or other policies deemed appropriate by the permittee. The permittee must also include a long-term verification process of O&M, which may include municipal inspections, third party inspections, owner/operator certification on a frequency deemed appropriate by the permittee, and/or other mechanisms. The permittee must continue to maintain an electronic inventory of practices on private property to include this information.

Observation 5: It appears that DDOE has not maintained a complete electronic inventory of practices on private property that includes O&M verification information. Since, DDOE/NRA/WRP tracks stormwater capture practices by site and not by the practice, multiple practices may be present at a site that are not accurately represented in the current inventory. DDOE/NRA/WRP staff estimated that there are approximately 3,000 to 5,000 stormwater capture practices, but an exact number could not be provided. At the Rite Aid Pharmacy Food Mart site located at 1401 Rhode Island Avenue, NE Washington, DC, the EPA inspection team two practices: a sand filter and an infiltration trench. However, inspection reports from that site noted more than two WRP tracking numbers and sub-WRP tracking numbers: 97-487, 97-487-1, 97-487-2, 97-544-1, 97-544-2 (see Exhibit 10 in Appendix 4).

Furthermore, DDOE does not distinguish between public and private stormwater capture practices in any of the three databases currently used as their electronic inventory. The three databases are: 1) Quickbase database; 2) an agency wide records management system; and 3) Access[®] tracking database, each discussed further below.

The DDOE/NRA/WRP has a Quickbase database, which tracks information about plan review, construction inspections, and final plan approvals. The final approval notice date is used to schedule inspections. This database contains limited details about stormwater maintenance inspections, but not all relevant details such as specific practices of number of practices per site. This database is also used to generate the general information sheet, which is printed prior to inspecting a stormwater capture practice for the first time.

The records management system is an agency wide service used to organize a variety of DDOE's folders, which includes the inspection file folders for stormwater capture practices. This system is an archive of physical file folders, with an electronic database that tracks the file number/name, but does not include details about the contents of the file folders. According to DDOE/NRA/WRP staff, the file folders are generated only if a site has been inspected and it contains documents such

as the site general information sheet, inspection reports, maintenance records, NOVs, and other related documentation. The records management room contains 993 records (i.e., site file folders). If an inspector is inspecting a stormwater practice, then he or she would need to check out the file folder from the records management system. This system does not appear to be complete as the EPA inspection team observed that there were two file folders for sand filter practices that did not have any inspection records (WPD numbers 08-2292 and 03-1216). DDOE/NRA/WPD staff stated that the inspection files should have been there, but the files submitted to the EPA inspection team after the inspection for both those sites contained only one undated, incomplete, and unsigned construction inspection report (see Exhibits 11 and 12 in Appendix 4).

DDOE/NRA/WPD also uses a separate Microsoft® Access tracking database established prior to the existence of the Quickbase database or the records management system. Obtaining information from the Access database is sometimes easier for staff. This database stores information such as the last inspected date, whether the stormwater capture practice is in the MS4 or CSS area, and the type of practice.

While on site, the EPA inspection team consulted all three tracking systems in order to gather the information needed to evaluate the compliance history of a stormwater capture practice. The three tracking systems are not linked; the Access database can be linked to the hard copy files by the WPD number, and the files can be linked to the Quickbase database by the plan number from the final approved plan. DDOE/NRA/WPD stated that they are currently working on a new tracking system to replace the three separate systems, which is scheduled to be completed by 2015.

On May 7, 2013, the EPA inspection team, along with DDOE/NRA/WPD inspectors, visited the Rite Aid Pharmacy site, located at 1401 Rhode Island Avenue, NE Washington, DC. The EPA inspection team observed that the manhole located over the clearwell was covered in sediment and water (see Photograph 12 in Appendix 5). One DDOE/NRA/WPD inspector stated that this was because it had been a long time since the site was last maintained. The EPA inspection team also observed that the stormwater inlet, which fed water into the sand filter, had debris inside of it. A second DDOE/NRA/WPD inspector explained that there was approximately 2 feet of accumulated material inside the inlet, which he estimated based on the visibility of the inverted pipe (see Photograph 13 in Appendix 5). After opening the manhole over the sand filter itself, the EPA inspection team saw that it was filled with water. This manhole was located over a concrete chamber of the sand filter that does not have any filter medium. The DDOE/NRA/WPD inspectors placed a depth gauge into the water and observed accumulated material in the chamber that

caused the depth gauge to stand up on its own (see Photographs 14 and 15 in Appendix 5). In addition, the EPA inspection team observed that there was rill erosion occurring near the infiltration trench, running from the southern edge of the parking lot down to Evart Street NE (see Photographs 16 through 18 in Appendix 5).

According to documents provided by DDOE (see Exhibit 10 in Appendix 4), a sand filter maintenance inspection was conducted at this site on November 21, 2002. On June 12, 2003, the site was issued a notice of infraction (NOI) and fined \$100, for failure to comply with requirements for proper and timely maintenance and repair of the stormwater capture practice. The Corrective Action Form included with the NOI required: maintenance service to the sand filter and infiltration trench; replacement of the cap from the clean-out pipe of the infiltration trench; and, to record a declaration of covenant for the stormwater management facility. At that time, it was unclear if the maintenance covenant was required for the site, the sand filter or the infiltration trench. On November 8, 2004, both a stormwater infiltration facility and a sand filter maintenance inspection were conducted. The inspections required maintenance covenants for the infiltration trench and the sand filter as well as signed maintenance contracts within 30 days of the inspections. On December 10, 2004, a maintenance letter generated by DDOE required the following: have all storm water inlets and chambers of the sand filter power washed and vacuumed; a full restoration of the filter bed media; stabilizing all eroded areas in the area of the infiltration dry well; replacing the cap of the infiltration trench monitoring well; and, obtaining a maintenance covenant if one has not already been recorded. DDOE/NRA/WRD staff stated that the case had gone to a hearing regarding the compliance issues. The maintenance issues were resolved in 2005. A maintenance service completion inspection report dated May 3, 2005, stated that work began on April 26, 2005, and was completed on May 3, 2005 (see Exhibit 10 in Appendix 4). However, no additional documentation dated after May 3, 2005 was provided for the site.

After a review of the databases, it appears that DC has maintenance agreements for approximately ten percent of their practices, and their maintenance agreements do not require submittal of inspection reports or certification of maintenance.

Section 4.3 Management of District Government Areas

Procedures to reduce the discharge of pollutants in stormwater runoff shall include, but not be limited to:

Section 4.3.3 Vehicle Maintenance/Material Storage Facilities/ Municipal Operations

The permittee shall implement stormwater pollution prevention measures at all permittee-owned, leased facilities and job sites including but not limited to vehicle/ equipment maintenance facilities, and material storage facilities.

For vehicle and equipment wash areas and municipal facilities constructed, redeveloped, or replaced, the permittee shall eliminate discharges of wash waters from vehicle and equipment washing into the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:

1. Self-contain, and haul off-site for disposal;
2. Equip with a clarifier; or
3. Equip with an alternative pre-treatment device.

Observation 6: At the time of the inspection, DC was not implementing stormwater pollution prevention measures at its municipal facilities including vehicle maintenance operations. On May 6, 2013, the EPA inspection team visited the DC Department of General Services (DGS) vehicle maintenance facility located at 4 DC Village Lane, SW Washington, DC. Activities at the facility include vehicle washing, minor vehicle maintenance, and vehicle and equipment storage primarily for school buses. The EPA inspection team observed vehicle washing (see Photographs 19 and 20 in Appendix 5) in the parking lot. Wash water entered a swale that leads to a bioretention area towards the southern perimeter of the site (see Photograph 21 in Appendix 5). A DDOE/NRA/WQD inspector stated that this bioretention area had been rehabilitated two years ago and now captures runoff for the entire parking lot area. At the time of the inspection, the site manager, was unable to provide a site plan or drainage map. According to the May 6, 2013 DDOE/NRA/WQD inspection report, the facility does not have a wash bay, an oil/water separator, or other measure for capturing wash water runoff from the facility (see Exhibit 13 in Appendix 4). In addition, stressed and/or dead patches of grass where the wash water runoff flows overland into the area near the southern bioretention swale were observed (see Photograph 22 in Appendix 5).

Section 4.3.7 Infrastructure Maintenance/Pollution Source Control Maintenance

The permittee shall continue to implement an operation and maintenance program that incorporates good housekeeping components at all municipal facilities located in the DC MS4 Permit Area, including but not limited to; municipal waste water treatment facility, potable drinking water facility, municipal fleet operations, maintenance garages, parks and recreation, street and infrastructure maintenance, and grounds maintenance operations, libraries and schools. The permittee shall document the program in the Annual Report, as required at Section 6.2 herein. The permittee shall, at a minimum:

1. Continue to implement maintenance standards at all municipal facilities that will protect the physical, chemical and biological integrity of receiving waters.
2. Continue to implement an inspection schedule in which to perform inspections to determine if maintenance standards are being met. Inspections shall be performed no less than once per calendar year and shall provide guidance in Stormwater Pollution Prevention Plan development and implementation, where needed.
3. Continue to implement procedures for record keeping and tracking inspections and maintenance at all municipal facilities.
4. Continue to implement an inspection and maintenance program for all permittee-owned management practices, including post-construction measures.

5. Continue to ensure proper operation of all treatment management practices and maintain them as necessary for proper operation, including all post-construction measures.
6. Ensure that any residual water following infrastructure maintenance shall be self-contained and disposed of legally in accordance with the Clean Water Act.

Observation 7: At the time of the inspection, DC was not implementing a maintenance program that incorporates good housekeeping components at all of its municipal facilities. DC was unable to provide the EPA inspection team with a list of the municipal facilities inspected over the last two years or copies of municipal site inspection reports. Instead, DDOE provided copies of approximately 50 stormwater capture practice inspection reports completed in the last two years located on District Department of Transportation (DDOT), DC General Services Administration (GSA), DC Parks, DC Public Schools, DC Department of Public Works (DPW), and DC Water sites (see Exhibit 14 in Appendix 4). These included inspections of bioretention basins, sand filters, catch basins, trench drains, stormwater ponds, and Baysavers. These inspection reports only noted observations related to maintenance of SWM structures and did not include observations related to facility layout and drainage, waste material handling and storage, facility condition, recordkeeping, or other good housekeeping BMPs. DC provided completed facility inspection reports for the three municipal sites that were inspected by DC during EPA's MS4 program assessment (see Exhibit 13, 15, and 16 in Appendix 4).

Following the on-site inspection, the EPA inspection team requested training, guidelines, standard operating procedures (SOPs) and/or checklists used for conducting stormwater pollution source control maintenance inspections of municipal facilities. In the records request tracking sheet submitted by DDOE on August 20, 2013 (see Item #38 in Exhibit 6 on Appendix 4), DC marked "Not Available" for these requested documents. DC did provide checklists, current practices, and training material for industrial and commercial site stormwater inspections; erosion and sediment control inspections procedures; inspection and enforcement procedures for illicit discharges and improper disposal; and stormwater management maintenance inspection guidance (see Exhibit 17 in Appendix 4).

On May 6, 2013, the EPA inspection team visited DC's DGS vehicle maintenance facility located at 4 DC Village Lane, SW Washington, DC. Activities at the facility include vehicle washing, minor vehicle maintenance and vehicle and equipment storage primarily for school buses. The EPA inspection team observed fluid staining under parked vehicles (see Photographs 23 and 24 in Appendix 5). Catch basins on site did not have oil-water separators. Numerous catch basins were clogged with sediment and filled with water that had an oily sheen (see Photographs 25 through 27 in Appendix 5). A catch basin filled with oily water was observed near an 8,000-gallon aboveground storage tank that

stored diesel fuel (see Photograph 28 in Appendix 5). The EPA inspection team observed a salt spreader stored outside and not located under cover (see Photograph 29 in Appendix 5). Empty oil containers were observed by the mechanic truck on site (see Photographs 30 and 31 in Appendix 5). Fuel storage containers were observed on the ground by the office and not in secondary containment (see Photograph 32 in Appendix 5). In addition, observations were made regarding the vehicle wash area, described in Observation 8.

On May 6, 2013, the EPA inspection team visited DC's DPW 3200 Benning Road Transfer Station located at 3200 Benning Road, NE Washington, DC. The EPA inspection team observed numerous stormwater inlets filled with sediment, debris, and oily substances (see Photographs 33 through 38 in Appendix 5). A DPW representative stated that all inlets were cleaned out two times per year. EPA was unable to verify this statement because DC provided maintenance records for Fort Totten Waste Transfer Station (see Exhibit 18 in Appendix 4), and not the Benning Road Transfer Station. Two stormwater inlets were located down gradient from an outdoor area where DC Water disposes of sludge that is removed from catch basin cleaning activities in DC (see Photograph 39 in Appendix 5). The stormwater inlet closest to the outdoor area was surrounded by booms. Site personnel stated that the inlet protection was maintained by DC Water (see Photograph 40 in Appendix 5). The EPA inspection team observed water pooling around an inlet that was clogged with sediment and debris (see Photograph 41 in Appendix 5). The EPA inspection team observed fluid staining underneath containers not located under cover and not in secondary containment (see Photograph 42 in Appendix 5). The Site Supervisor stated that numerous 55-gallon drums (not stored under cover or with secondary containment) were empty (see Photograph 43 in Appendix 5). The EPA inspection team observed that there were portions of the roof were missing from the indoor municipal waste loading/unloading floor on the upper level of the main facility building. According to the DPW representative, in June 2012 a major fire occurred in the trash pile which melted the plastic windows in the roof structure, thus causing trash on the loading/unloading floor to be exposed to precipitation (see Photographs 44 and 45 in Appendix 5). Floor drains between the loading/unloading area and the vehicle ramps were clogged and it was unclear if they were connected to the storm sewer (see Photograph 46 in Appendix 5). Runoff from the loading/unloading area flowed down the vehicle ramps into stormwater inlets near the parking area, which were clogged (see Photographs 47 through 49 in Appendix 5). In addition, the EPA inspection team observed an overgrown vegetated swale (see Photograph 50 in Appendix 5) and bioretention cell on site (see Photograph 51 in Appendix 5). A DDOE/NRA/WQD inspector stated that the area was in need of restoration such as mowing and tree maintenance.

On May 6, 2013, the EPA inspection team visited DC's DOT Street and Bridge Maintenance site located at 1403 W Street, NE Washington, DC.

The EPA inspection team observed fluid staining and spills on the ground around machinery and equipment (see Photographs 52 through 55 in Appendix 5). Spilled asphalt was also observed on the ground (see Photographs 56 and 57 in Appendix 5). The EPA inspection team observed an oily sheen and debris in several catch basins (see Photographs 58 and 59 in Appendix 5) and a stormwater management control measure (assumed to be a sediment pond) located near the fence in the southeast corner of the facility that was filled with sediment, litter, and what appeared to be a thick, black hydrophobic substance (see Photographs 60 through 63 in Appendix 5). According to the sampling conducted by DDOE on May 9, 2013, the sample results indicate the presence of Long Chain Alkanes including: hexadecane, heneicosane, cyclododecane, and tetradecane. According to correspondence from DDOE, dated December 5, 2013, DDOE has contracted with an environmental firm to remediate the DDOT site. The EPA inspection team observed numerous 5-gallon containers of DETACK being stored on wooden pallets without secondary containment (see Photograph 64 in Appendix 5). One DETACK container had a broken lid (see Photograph 65 in Appendix 5).

On May 6, 2013, the EPA inspection team visited DC's DDOT vehicle maintenance and salt storage facility located at 414 Farragut Street, NE Washington, DC. Activities at the facility include vehicle washing, vehicle maintenance, and vehicle and salt storage. DDOT stated that the salt housed by DDOT was owned by DPW. The EPA inspection team observed fluid staining under parked vehicles (see Photograph 66 in Appendix 5). The staining was visible on the unstabilized area behind the parked vehicles near a storm sewer inlet leading to the on-site sand filters (see Photograph 67 in Appendix 5). A DDOE/NRA/WQD Environmental Protection Specialist stated that clean-up was required for the spill. The EPA inspection team also observed that the drain valve to the brine tank secondary containment was in the open position (see Photograph 68 in Appendix 5). The brine tanks were labeled "Magnesium Chloride"; however, site personnel informed the EPA inspection team that they now use beet juice instead of magnesium chloride (see Photograph 69 in Appendix 5). The EPA inspection team observed a salt tank that was not located inside secondary containment (see Photograph 70 in Appendix 5). Salt was present outside the tank and on the ground (see Photograph 71 in Appendix 5). A salt dome constructed in 2002 was also located on site. The salt dome had two entrances, neither of which had doors. Salt was present in both entrances and on the trench drain in the entrances (see Photographs 72 through 74 in Appendix 5). Salt staining was visible near a storm sewer inlet (see Photograph 75 in Appendix 5). DC and site personnel were not sure where the inlet drained; however, a DDOE/NRA/WPD inspector stated he believed it drained to the sand filters on site. The EPA inspection team also observed a vehicle washing area on site (see Photographs 76 and 77 in Appendix 5). There were no pollution prevention measures present at the wash area. Drums labeled "SALT-AWAY" and "LUBRA-SEAL" were located near the washing

area (see Photographs 78 and 79 in Appendix 5). Site personnel stated that SALT-AWAY was a detergent that allowed salt to run off the vehicles and that LUBRA-SEAL was a lubricant for the auger mechanism. A storm sewer inlet, surrounded by two GeoHays[®], was located down slope from the vehicle washing area (see Photograph 80 in Appendix 5). Site personnel stated that they used to have spill kits; however, at the time of the inspection no spill kits were on site.

On May 6, 2013, the EPA inspection team visited DC's Fort Totten Transfer Station located at 4900 Bates Road, NE Washington, DC. The EPA inspection team observed a pile of trash and debris located outside exposed to precipitation (see Photograph 81 in Appendix 5). DC personnel stated that DC residents dropped off bulk trash items in this area. A storm sewer inlet was located near the trash pile. DC personnel stated the inlet drained to a Vortechs[®] system on site before entering the MS4. The entire system, from inlet to outlet, was filled with trash and debris (see Observation 3).

Observation 8: At the time of the inspection, DC had not implemented an inspection schedule to perform inspections at least once per calendar year at all municipal facilities to determine if maintenance standards are being met. On May 6, 2013, the EPA inspection team visited DC's DPW 3200 Benning Road Transfer Station. A DDOE/NRA/WQD Environmental Protection Specialist stated that the site had not received a stormwater inspection by DC, but had been inspected for incidents of illicit discharge. As mentioned in Observation 9, a document provided by DC in place of municipal site inspection, showed inspection reports for BMP inspections located at municipal facilities (see Exhibit 14 in Appendix 4). These records did not indicate that municipal sites were inspected to ensure that the sites met maintenance standards, had SWPPPs, or practiced good housekeeping.

Following the on-site inspection, the EPA inspection team requested documentation of municipal site inspection reports and any documentation of follow-up actions (including enforcement actions, if applicable). DC was unable to produce any documentation in response to this request. As mentioned in Observation 9, the documents provided by DC were inspection reports for BMP inspections located on municipal facilities (see Exhibit 14 in Appendix 4). However, these inspection reports did not include any documentation of follow up or enforcement action for the inspected sites where issues or concerns were observed.

Section 4.3.10 Municipal Official Training

The permittee shall continue to implement an on-going training program for those employees specified below, and any other employees whose job functions may impact stormwater program implementation. The training program shall address the importance of protecting water quality, the requirements of this permit, design, performance, operation and maintenance standards, inspection procedures, selecting appropriate management practices, ways to perform their job

activities to prevent or minimize impacts to receiving waters, and procedures for tracking, inspecting and reporting, including potential illicit discharges. The permittee shall provide follow-up and refresher training at a minimum of once every twelve months, and shall include any changes in procedures, techniques or requirements.

1. Municipal Planning
2. Site plan review
3. Design
4. Construction
5. Transportation planning and engineering
6. Street/sewer and right-of-way construction and maintenance
7. Water and sewer departments
8. Parks and recreation department
9. Municipal water treatment and waste water treatment
10. Fleet maintenance
11. Fire and police departments
12. Building maintenance and janitorial
13. Garage and mechanic crew
14. Contractors and subcontractors who may be contracted to work in the above described
15. areas
16. Personnel responsible for answering questions about the permittee's stormwater program,
17. including persons who may take phone calls about the program
18. Any other department of the permittee that may impact stormwater runoff

Observation 9: At the time of the inspection, DC was not implementing a training program for employees at municipal facilities whose job functions may impact stormwater program implementation. Following the inspection, the EPA inspection team requested training documents and attendance lists for training held for maintenance and good housekeeping practices at municipal facilities. The record request spreadsheet submitted by DDOE on August 20, 2013 shows that these documents are not available (see Item #47 in Exhibit 6 in Appendix 4). However, during the EPA inspection team's visit to the 414 Farragut Street, NE vehicle maintenance and salt storage facility, DDOT personnel stated that DDOT does provide training for staff on stormwater issues and documentation of these trainings was not provided either.

Section 4.4 Management of Commercial and Institutional Areas

The permittee shall establish and implement policies and procedures to reduce the discharge of pollutants in stormwater runoff from all commercial and institutional (including federal) areas covered by this permit.

The permittee shall ensure maintenance of all stormwater management controls in commercial and institutional land areas in accordance with the following provisions:

1. Tracking all controls;
2. Inspecting all controls on a regular basis, according to an inspection schedule;

3. Ensure compliance with the MS4 permit and municipal ordinances at commercial and institutional facilities.

Observation 10: It appears that DC has not established and implemented policies and procedures to reduce the discharge of pollutants in stormwater runoff from all commercial and institutional (including federal) areas covered by this permit by: not tracking all controls, not inspecting all controls on a regular basis, according to an inspection schedule and not ensuring compliance with the MS4 permit and municipal ordinances at commercial and institutional facilities. On May 7, 2013, the EPA inspection team visited Rodgers Brothers Service, Inc. located at 2230 Lawrence Avenue, NE Washington, DC. This facility is a commercial recycling and waste recovery operations site. The Vice President of Rodgers Brothers Service, Inc. stated that the facility used to have coverage under a Multi-Sector General Permit. A SWPPP dated May 11, 2000, was present on site. The EPA inspection team observed inlet protection devices (i.e., Gutterbuddy®) that were saturated and filled with sediment (see Photographs 82 through 85 in Appendix 5). The EPA inspection team observed sediment leaving the site and entering storm drains in the street (see Photographs 86 and 87 in Appendix 5). A drain plug was not properly installed in a secondary containment unit for an oil tank, and an oily discharge was observed flowing into a storm drain inlet (see Photographs 88 and 89 in Appendix 5). Site personnel used spill kit materials to contain the oil spill during the EPA inspection team's visit (see Photograph 90 and 91 in Appendix 5). A large, uncovered, unstable stockpile of dirt fill with visible riling was observed up gradient from a storm drain inlet (see Photograph 92 in Appendix 5). The Rodgers Brothers VP stated that the fill pile had been there for more than seven years.

On May 7, 2013, the EPA inspection team visited AYT Auto Services located at 2121 West Virginia Avenue, NE Washington, DC. This facility is a commercial auto repair shop. A spill kit and absorbent material were not present on site. Numerous fluid spills were observed on the ground outside (see Photograph 93 in Appendix 5). Uncovered engine parts were stored outside and not under cover exposed to precipitation (See Photographs 94 through 97 in Appendix 5). Open containers with unknown substances were stored outside, not under cover, and not in secondary containment (see Photograph 98 in Appendix 5). A battery was observed on the ground (see Photograph 99 in Appendix 5). An oily discharge was observed flowing from the facility into storm drain inlets (see Photographs 100 through 103 in Appendix 5).

Section 4.4.1 Inventory of Critical Sources and Source Controls

Section 4.4.1.1

The permittee shall continue to maintain a watershed-based inventory or database of all facilities within its jurisdiction that are critical sources of stormwater pollution. Critical sources to be tracked shall include the following:

- a. Automotive service facilities, *e.g.*, service, fueling and salvage facilities;
- b. Industrial activities, as defined at 40 C.F.R. §§ 122.26(b)(14); and
- c. Construction sites exceeding one acre, or sites under one acre that are part of a larger common plan of development.
- d. Dry cleaners
- e. Any other facility the permittee has identified as a Critical Source

Section 4.4.1.2

The permittee shall include the following minimum fields of information for each industrial and commercial facility identified as a critical source:

- a. Name of facility and name of owner/ operator;
- b. Address of facility;
- c. Size of facility; and
- d. Activities conducted at the facility that could impact stormwater.
- e. Practices and/or measures to control pollutants.
- f. Inspection and maintenance schedules, dates and findings.

Section 4.4.1.3

The permittee shall update its inventory of critical sources at least annually. The update may be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (*e.g.*, business licenses, pretreatment permits, sanitary sewer hook-up permits, and similar information).

Observation 11: It appears that DC is not maintaining, including minimum fields of information, or annually updating a watershed-based inventory or database of all facilities within its jurisdiction that are critical sources of stormwater pollution.. DC provided a document titled “Final Draft Report: Pollutants Priority System and Inspection & Enforcement Strategic Plan for Facilities in MS4 Area” (see extracted pages for high and medium priority facilities in Exhibit 19 in Appendix 4). This document had a revision date of November 2010. DC stated that the document is currently under revision. While the document does list various industrial and commercial facilities, it does not reference or designate critical sources. DC provided a database titled “WQD MS4 Inspection Tracking Database” (see Exhibit 20 in Appendix 4). This database tracks investigations, emergency response activities, and facility inspections. However, the tracking database does not provide the minimum fields of information for each industrial and commercial facility.

Section 4.4.2 Inspection of Critical Sources

The permittee shall continue to inspect all commercial facilities identified in Part 4.4.1. herein and any others found to be critical sources twice during the five-year term of the permit. A minimum interval of six months between the first and the second mandatory compliance inspection is required, unless a follow-up inspection to ensure compliance must occur sooner.

Observation 12: As describe in Observation 14, it does not appear that DC is identifying critical sources. Further it does not appear that DC is ensuring that inspections of critical sources will occur twice during the permit term. DC provided a document titled “Final Draft Report: Pollutants Priority System and Inspection & Enforcement Strategic Plan for Facilities in MS4 Area” (see extracted pages for high and medium priority facilities in Exhibit 19 in Appendix 4). This document categorizes the inventory of facilities as either a high, medium, or low priority. The document does not designate an inspection frequency based on the ranking. DC provided a document titled “(#1) DC_IDDE Program Strategy.” Section 4 of this document (see Exhibit 21 in Appendix 4) specifies that auto repair, car wash, dry cleaners, and laundromats (facilities that would fall under the critical source category of Section 4.4.1.1 of this permit) are inspected once every five years. However, they did not provide documentation that these inspections were occurring.

Section 4.4.3 Compliance Assurance

At each facility identified as a critical source, the permittee’s inspector(s) shall verify that the operator is implementing a control strategy necessary to protect water quality. Where the permittee determines that existing measures are not adequate to protect water quality, the permittee shall require additional site-specific controls sufficient to protect water quality.

Observation 13: It appears that DC is not verifying that operators of all critical source facilities are implementing control strategies to protect water quality. DC did not provide the EPA inspection team with a list of designated critical sources. Further DC inspectors have not verified that the operators are implementing control strategies necessary to protect water quality.

On May 7, 2013, at the conclusion of the inspection of Rodgers Brothers Service, Inc., a DDOE/NRA/WQD representative issued a Notice of Inspection and Site Directive requiring the site to address the issues found (see Observation 13). After EPA’s on-site inspection, DC provided the site’s inspection report, which included a section on compliance and follow-up (see Exhibit 22 in Appendix 4). Verification of the implementation of control strategies was not provided for AYT Auto or Tony Auto Repair & Body Shop.

Section 4.5 Management of Industrial Facilities and Spill Prevention

Section 4.5.1

The permittee shall continue to implement a program to monitor and control pollutants in stormwater discharged from Industrial Facilities located within the MS4 Permit Area, as defined herein, pursuant to the requirements in 40 C.F.R. § 122.26(d)(2)(iv)(C). These facilities shall include, but are not limited to:

- a. Private Solid Waste Transfer Stations
- b. Hazardous Waste Treatment, Disposal, and/or Recovery Plants
- c. Industrial Facilities subject to SARA or EPCRA Title III
- d. Industrial Facilities with NPDES Permits
- e. Industrial facilities with a discharge to the MS4

Section 4.5.2

The permittee shall continue to maintain and update the industrial facilities database.

Section 4.5.3

The permittee shall continue to perform or provide on-site assistance/inspections and outreach focused on the development of stormwater pollution prevention plans and NPDES permit compliance.

Section 4.5.4

The permittee shall continue to refine and implement procedures to govern the investigation of facilities suspected of contributing pollutants to the MS4, including at a minimum: (i) a review, if applicable, of monitoring data collected by the facility pursuant to its NPDES permit; and (ii) wet weather screening as required by Part 5.2.1 herein (including collecting data on discharges from industrial sites). These procedures shall be submitted as part of each Annual Report required by Part 6.2 herein.

Section 4.5.5

The permittee shall continue to implement the prohibition against illicit discharges, control spills, and prohibit dumping. Continue to implement a program to prevent, contain, and respond to spills that may discharge to the MS4, and report on such implementation submitted in each Annual Report. The spill response program may include a combination of spill response actions by the permittee and/or another public or private entity.

Section 4.5.6

The permittee shall report progress in developing and carrying out industrial-related programs in each Annual Report required by Section 6 herein. Provide an explanation as to how the implementation of these procedures will meet the requirements of the Clean Water Act.

Observation 14: It appears that DC is not implementing a program to monitor and control pollutants from all industrial facilities. The EPA inspection team was told verbally that DC has a database of 232 industrial facilities, 11 of which NPDES facilities with individual permits. Following the on-site

inspection, the EPA inspection team requested the database that provides the 232 industrial facilities. DC provided the list of 11 individually-permitted NPDES facilities and 3 unpermitted industrial facilities, but did not provide a database with the all the industrial facilities without individual NPDES permits that DC discussed with the EPA inspection team (see Exhibit 23 in Appendix 4). DC industrial facility inspection records show that only one of the sites, Rock Creek Park, on the list of 11 permitted facilities and three unpermitted industrial facilities had been visited since October 2010 (See the Facility Inspection Table in Exhibit 20 in Appendix 4).

Section 4.6 Stormwater Maintenance for Construction Sites

Section 4.6.1

Continue implementation of the Program that reduces the discharge of pollutants from construction sites. In each Annual Report, the permittee shall evaluate and report to determine if the existing practices meet the requirements of 40 C.F.R. § 122.26(d)(2)(iv)(A) and (D).

Observation 15: At the time of the inspection, DC did not identify non-sediment issues that could discharge pollutants from construction sites during the construction site inspections. On May 8, 2013, the EPA inspection team shadowed a DDOE/NRA/WPD construction site inspector while he conducted an inspection of the Cathedral Commons construction site, located at 3336 Wisconsin Avenue, NW Washington, DC. The EPA inspection team observed the following non-sediment issues during the inspection:

- A fuel tank without secondary containments that was not under cover (see Photograph 104 in Appendix 5);
- Concrete washout residue on the ground (see Photograph 105 in Appendix 5); and
- Drums and containers without secondary containments that were not under cover (see Photographs 104, 106, and 107 in Appendix 5).

The non-sediment issues were not identified on the DC inspector's report (see Exhibit 24 in Appendix 4). The DDOE/NRA/WPD inspector stated that he does not discuss non-sediment issues during his inspections.

Section 4.6.3

Continue to implement inspection and enforcement procedures, including but not limited to inspection of permitted construction sites that disturb more than 5,000 square feet of soil as follows:

1. First inspection prior to ground disturbing activities to review planned sediment and erosion control measures;
2. Second inspection to verify proper installation and maintenance of sediment and erosion control measures;

3. Third inspection to review planned installation and maintenance of stormwater management practices;
4. Fourth inspection to verify proper installation of stormwater management practices following final stabilization of the project site; and
5. Other inspections as necessary to ensure compliance with relevant standards and requirements.

Observation 16: At the time of the inspection, DC was not identifying all erosion and sediment control issues during construction site inspections. On May 8, 2013, the EPA inspection team shadowed a DDOE/NRA/WPD inspector while he conducted an inspection of the Cathedral Commons construction site, located at 3336 Wisconsin Avenue, NW Washington, DC. The EPA inspection team observed dewatering pipes on site. The pipes led to a dewatering treatment system, which discharged to the sanitary sewer. The EPA inspection team observed that one of the pipes was leaking (see Photograph 108 in Appendix 5). The leaking water came into contact with a sand stockpile located on Newark Street, NW near its intersection with Idaho Avenue, NW. The stockpile was not covered or stabilized and it did not have perimeter controls. Sand and water were located on Newark Street, NW near Idaho Avenue, NW downslope of the leak and stockpile (see Photographs 109 and 110 in Appendix 5). Sand and water accumulation was also present underneath a construction trailer on Newark Street, NW near Idaho Avenue, NW next to a storm sewer inlet protected by a Gutterbuddy® (see Photographs 111 and 112 in Appendix 5). The leak and stockpile issues were not included in the inspector's inspection report (see Exhibit 24 in Appendix 4).

PERMIT FOR THE DISTRICT OF COLUMBIA
MUNICIPAL SEPARATE STORM SEWER SYSTEM

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1. DISCHARGES AUTHORIZED UNDER THIS PERMIT

1.1 Permit Area

This permit covers all areas within the jurisdictional boundary of the District of Columbia served by, or otherwise contributing to discharges from, the Municipal Separate Storm Sewer System (MS4) owned or operated by the District of Columbia. This permit also covers all areas served by or contributing to discharges from MS4s owned or operated by other entities within the jurisdictional boundaries of the District of Columbia unless those areas have separate NPDES MS4 permit coverage or are specifically excluded herein from authorization under the District's stormwater program. Hereinafter these areas collectively are referred to as "MS4 Permit Area".

1.2 Authorized Discharges

This permit authorizes all stormwater point source discharges to waters of the United States from the District of Columbia's MS4 that comply with the requirements of this permit. This permit also authorizes the discharge of stormwater commingled with flows contributed by process wastewater, non-process wastewater, or stormwater associated with industrial activity provided such discharges are authorized under separate NPDES permits.

This permit authorizes the following non-stormwater discharges to the MS4 when appropriate stormwater activities and controls required through this permit have been applied and which are: (1) discharges resulting from clear water flows, roof drainage, dechlorinated water line flushing, landscape irrigation, ornamental fountains, diverted stream flows, rising ground waters, uncontaminated ground water infiltration to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation waters, springs, footing drains, lawn watering, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, wash water, fire fighting activities, and similar types of activities; and (2) which are managed so that water quality is not further impaired and that the requirements of the federal Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, and EPA regulations are met.

1.3 Limitations to Coverage

1.3.1 Non-stormwater Discharges

The permittee, as defined herein, shall effectively prohibit non-stormwater discharges into the MS4, except to the extent such discharges are regulated with an NPDES permit.

1.3.2 Waivers and Exemptions

This permit does not authorize the discharge of any pollutant from the MS4 which arises from or is based on any existing waivers and exemptions that may otherwise apply and are not consistent with the Federal Clean Water Act and other pertinent guidance, policies, and regulations. This narrative prohibition on the applicability of such waivers and exemptions extends to any activity that would otherwise be authorized under District law, regulations or

ordinance but which impedes the reduction or control of pollutants through the use of stormwater control measures and/or prevents compliance with the narrative /numeric effluent limits of this permit. Any such discharge not otherwise authorized may constitute a violation of this permit.

1.4 Discharge Limitations

The permittee must manage, implement and enforce a stormwater management program (SWMP) in accordance with the Clean Water Act and corresponding stormwater NPDES regulations, 40 C.F.R. Part 122, to meet the following requirements:

1.4.1. Effectively prohibit pollutants in stormwater discharges or other unauthorized discharges into the MS4 as necessary to comply with existing District of Columbia Water Quality Standards (DCWQS);

1.4.2. Attain applicable wasteload allocations (WLAs) for each established or approved Total Maximum Daily Load (TMDL) for each receiving water body, consistent with 33 U.S.C. § 1342(p)(3)(B)(iii); 40 C.F.R. § 122.44(k)(2) and (3); and

1.4.3. Comply with all other provisions and requirements contained in this permit, and in plans and schedules developed in fulfillment of this permit.

Compliance with the provisions contained in Parts 2 through 8 of this permit, including milestones and final dates for attainment of applicable WLAs, shall constitute adequate progress toward compliance with DCWQS and WLAs for this permit term.

2. **LEGAL AUTHORITY, RESOURCES AND STORMWATER PROGRAM ADMINISTRATION**

2.1 Legal Authority

2.1.1 The permittee shall use its existing legal authority to control discharges to and from the Municipal Separate Storm Sewer System in order to prevent or reduce the discharge of pollutants to achieve water quality objectives, including but not limited to applicable water quality standards. To the extent deficiencies can be addressed through regulation or other Executive Branch action, the permittee shall remedy such deficiencies within 120 days. Deficiencies that can only be addressed through legislative action shall be remedied within 2 years of the effective date of this permit, except where otherwise stipulated, in accordance with the District's legislative process. Any changes to or deficiencies in the legal authority shall be explained in each Annual Report.

2.1.2 No later than 18 months following the effective date of this permit, the permittee shall update and implement Chapter 5 of Title 21 of District of Columbia Municipal Regulations (Water Quality and Pollution) ("updated DC Stormwater Regulations"), to address the control of stormwater throughout the MS4 Permit Area. Such regulations shall be consistent with this

permit, and shall be at least as protective of water quality as the federal Clean Water Act and its implementing regulations require.

2.1.3 The permittee shall ensure that the above legal authority in no way restricts its ability to enter into inter-jurisdictional agreements with other District agencies and/or other jurisdictions affected through this permit.

2.1.4 Review and revise, where applicable, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate the implementation of the following standards: (1) standards resulting from issuance of District stormwater regulations required by Section 2.1, paragraph 1 herein; and (2) performance standards required by this permit.

2.2 Fiscal Resources

The permittee, including all agencies and departments of the District as specified in section 2.3 below, shall provide adequate finances, staff, equipment and support capabilities to implement the existing Stormwater Management Program (SWMP) and the provisions of this permit. For the core program the permittee shall provide a dedicated funding source. Each annual report under Part 6 of this permit shall include a demonstration of adequate fiscal capacity to meet the requirements of this permit.

2.3 Stormwater Management Program Administration/Permittee Responsibilities

2.3.1 The Government of the District of Columbia is the permittee, and all activities of all agencies, departments, offices and authorities of the District must comply with the requirements of this permit. The permittee has designated the District Department of the Environment (DDOE) as the agency responsible for managing the MS4 Stormwater Management Program and all activities necessary to comply with the requirements of this permit and the Comprehensive Stormwater Management Enhancement Amendment Act of 2008 by coordinating and facilitating a collaborative effort among other city agencies and departments including but not limited to departments designated as “Stormwater Agencies” by the Comprehensive Stormwater Management Enhancement Amendment Act of 2008:

District Department of Transportation (DDOT);
Department of Public Works (DPW);
Office of Planning (OP);
Office of Public Education Facilities Modernization (OPEFM);
Department of Real Estate Services (DRES);
Department of Parks and Recreation; and
DC Water and Sewer Authority (also known as and hereinafter referred to as DC Water).

Each named entity is responsible for complying with those elements of the permit within its jurisdictional scope and authorities.

2.3.2 DDOE shall coordinate, and all agencies, offices, departments and authorities shall implement provisions of the existing MS4 Task Force Memorandum of Understanding (MOU) dated 2000, updated matrix of responsibilities (January 2008), and any subsequent updates; the MOU between DDOE and DC Water (2012) and any subsequent updates; and other institutional agreements to coordinate compliance activities among agency partners to implement the provisions of this permit. DDOE's major responsibilities under these MOUs and institutional agreements shall include:

1. Convening regular meetings and communication with MS4 Task Force agencies and other committees established to implement this permit to budget, assign and implement projects, and monitor, inspect and enforce all activities required by the MS4 permit.
2. Providing technical and administrative support for the MS4 Task Force and other committees established to implement this permit
3. Evaluating, assessing, and synthesizing results of the monitoring and assessment programs and the effectiveness of the implementation of management practices and coordinating necessary adjustments to the stormwater management program in order to ensure compliance.
4. Coordinating the completion and submission of all deliverables required by the MS4 Permit.
5. Projecting revenue needs to meet MS4 Permit requirements, overseeing the District's stormwater fees to fulfill revenue needs, and coordinating with DC Water to ensure the District's stormwater fee is collected.
6. Making available to the public and other interested and affected parties, the opportunity to comment on the MS4 stormwater management program.

2.3.3 Within 180 days of permit issuance, the permittee shall complete an assessment of additional governmental agencies and departments, non-governmental organizations, watershed groups or other community organizations in the District and adjacent states to partner with to administer required elements of the permit. Intra- and inter-agency agreements between relevant governmental and nongovernmental organizations shall be established to ensure successful coordination and implementation of stormwater management activities in accordance with the requirements of this permit. Additional government and nongovernmental organizations and programs to consider include; land use planning, brownfields redevelopment, fire department, building and safety, public health, parks and recreation, and federal departments and agencies, including but not limited to, the National Park Service, Department of Agriculture, Department of Defense, and General Services Administration, responsible for facilities in the District.

3. STORMWATER MANAGEMENT PROGRAM (SWMP) PLAN

The permittee shall continue to implement, assess and upgrade all of the controls,

procedures and management practices, described in this permit, and in the SWMP dated February 19, 2009, and any subsequent updates. This Program has been determined to reduce the discharge of pollutants to the maximum extent practicable. The Stormwater Management Program is comprised of all requirements in this permit. All existing and new strategies, elements, initiatives, schedules or programs required by this permit must be documented in the SWMP Plan, which shall be the consolidated document of all stormwater program elements. Updates to the plan shall be consistent with all compliance deadlines in this permit. A current plan shall be posted on the permittee's website at an easily accessible location at all times.

New Stormwater Management Program strategies, elements, initiatives and plans required to be submitted to EPA for review and approval are included in Table 1.

TABLE 1
Elements Requiring EPA Review and/or Approval

Element	Submittal Date (from effective date of this permit)
Anacostia River Watershed Trash Reduction Calculation Methodology (4.10)	1 year
Catch Basin Operation and Maintenance Plan (4.3.5.1)	18 months
Outfall Repair Schedule (4.3.5.3)	18 months
Off-site Mitigation/Payment-in-Lieu Program (4.1.3)	18 months
Retrofit Program (4.1.5)	2 years
Consolidated TMDL Implementation Plan (4.10.3)	2 years
Revised Monitoring Program (5.1)	2 years
Revised Stormwater Management Program Plan (3)	4 years

No later than 3 years from the issuance date of this permit the permittee shall public notice a fully updated Plan including all of the elements required in this permit. No later than 4 years from the issuance date of this permit the permittee shall submit to EPA the fully updated plan for review and approval, as part of the application for permit renewal.

The measures required herein are terms of this permit. These permit requirements do not prohibit the use of 319(h) funds for other related activities that go beyond the requirements of this permit, nor do they prohibit other sources of funding and/or other programs where legal or contractual requirements preclude direct use for stormwater permitting activities.

TABLE 2
Legal Authority for Selected Required Program Stormwater Elements

Required Program Application Element	Regulatory References
Adequate Legal Authority	40 C.F.R. § 122.26(d)(2)(I)(C)-(F)

Green technology stormwater management practices, which incorporate technologies and practices across District activities.	Chapter 5 of Title 21 of District of Columbia Municipal Regulations (Water Quality and Pollution)
Existing Structural and Source Controls	40 C.F.R. § 122.26(d)(2)(iv)(A)(1)
Roadways	40 C.F.R. § 122.26(d)(2)(iv)(A)(3)
Pesticides, Herbicides, and Fertilizers Application	40 C.F.R. § 122.26(d)(2)(iv)(A)(6)
Municipal Waste Sites	40 C.F.R. § 122.26(d)(2)(iv)(A)(5)
Spill Prevention and Response	40 C.F.R. § 122.26(d)(2)(iv)(B)(4)
Infiltration of Seepage	40 C.F.R. § 122.26(d)(2)(iv)(B)(7)
Stormwater Management Program for Commercial and Residential Areas	40 C.F.R. § 122.26(d)(2)(iv)(A)
Manage Critical Source Areas	40 C.F.R. § 122.26(d)(iii)(B)(6)
Stormwater Management for Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)
Industrial and High Risk Runoff	40 C.F.R. § 122.26(d)(2)(iv)(C), (iv)(A)(5)
Identify Priority Industrial Facilities	40 C.F.R. § 122.26(d)(2)(iv)(C)(1)
Illicit Discharges and Improper Disposal	40 C.F.R. § 122.26(d)(2)(iv)(B)(1)-(5), (iv)(B)(7)
Flood Control Projects	40 C.F.R. § 122.26(d)(2)(iv)(A)(4)
Public Education and Participation	40 C.F.R. § 122.26(d)(2)(iv)(A)(6), (iv)(B)(5), (iv)(B)(6)

Monitoring and Assessment and Reporting	40 C.F.R. § 122.26(d)(2)(iv)(D)(v)
Monitoring Program	40 C.F.R. § 122.26(d)(2)(iv)(B)(2), (iii), iv(A), (iv)(C)(2)
Characterization Data	40 C.F.R. § 122.26(d)(2)(iii)(B)-(D), 40 C.F.R. § 122.21(g)(7)
Reporting	40 C.F.R. § 122.41(l)

4. IMPLEMENTATION OF STORMWATER CONTROL MEASURES

4.1 Standard for Long-Term Stormwater Management

The permittee shall continue to develop, implement, and enforce a program in accordance with this permit and the permittee's updated SWMP Plan that integrates stormwater management practices at the site, neighborhood and watershed levels that shall be designed to mimic pre-development site hydrology through the use of on-site stormwater retention measures (e.g., harvest and use, infiltration and evapotranspiration), through policies, regulations, ordinances and incentive programs

4.1.1 Standard for Stormwater Discharges from Development

No later than 18 months following issuance of this permit, the permittee shall, through its Updated DC Stormwater Regulations or other permitting or regulatory mechanisms, implement one or more enforceable mechanism(s) that will adopt and implement the following performance standard for all projects undertaking development that disturbs land greater than or equal to 5,000 square feet:

Require the design, construction and maintenance of stormwater controls to achieve on-site retention of 1.2" of stormwater from a 24-hour storm with a 72-hour antecedent dry period through evapotranspiration, infiltration and/or stormwater harvesting and use for all development greater than or equal to 5,000 square feet.

The permittee may allow a portion of the 1.2" volume to be compensated for in a program consistent with the terms and requirements of Part 4.1.3.

4.1.2 Code and Policy Consistency, Site Plan Review, Verification and Tracking

By the end of this permit term the permittee must review and revise, as applicable, stormwater, building, health, road and transportation, and other codes and regulations to remove barriers to, and facilitate the implementation of the retention performance standard required in

Section 4.1.1. The permittee must also establish/update and maintain a formal process for site plan reviews and a post-construction verification process (e.g., inspections, submittal of as-builts) to ensure that standards are appropriately implemented. The permittee must also track the on-site retention performance of each project subject to this regulatory requirement.

4.1.3 Off-Site Mitigation and/or Fee-in Lieu for all Facilities

Within 18 months of the effective date of this permit the permittee shall develop, public notice, and submit to EPA for review and comment an off-site mitigation and/or fee-in-lieu program to be utilized when projects will not meet stormwater management performance standard as defined in Section 4.1.1. The permittee has the option of implementing an off-site mitigation program, a fee-in-lieu program, or both. Any allowance for adjustments to the retention standard shall be defined in the permittee's regulations. The program shall include at a minimum:

1. Establishment of baseline requirements for on-site retention and for mitigation projects. On-site volume plus off-site volume (or fee-in-lieu equivalent or other relevant credits) must equal no less than the relevant volume in Section 4.1.1;
2. Specific criteria for determining when compliance with the performance standard requirement for on-site retention cannot technically be met based on physical site constraints, or a rationale for why this is not necessary;
3. For a fee-in-lieu program, establishment of a system or process to assign monetary values at least equivalent to the cost of implementation of controls to account for the difference in the performance standard, and the alternative reduced value calculated; and
4. The necessary tracking and accounting systems to implement this section, including policies and mechanisms to ensure and verify that the required stormwater practices on the original site and appropriate required off-site practices stay in place and are adequately maintained.

The program may also include incentives for achieving other important environmental objectives such as ongoing measurable carbon sequestration, energy savings, air quality reductions in green house gases, or other environmental benefits for which the program can develop methods for quantifying and documenting those outcomes. Controls implemented to achieve those outcomes are subject to the same level of site plan review, inspection, and operation and maintenance requirements as stormwater controls.

District-owned transportation right-of-way projects are subject to a similarly stringent process for determining an alternate performance volume, but for the duration of this permit term need not conduct off-site mitigation or pay into a fee-in-lieu program to compensate for the difference.

4.1.4 Green Landscaping Incentives Program

No later than one year following permit issuance, the permittee shall develop an incentive program to increase the quantity and quality of planted areas in the District while allowing flexibility for developers and designers to meet development standards. The Incentive Program

shall use such methods as a scoring system to encourage green technology practices such as larger plants, permeable paving, green roofs, vegetated walls, preservation of existing trees, and layering of vegetation along streets and other areas visible to the public.

4.1.5 Retrofit Program for Existing Discharges

4.1.5.1 Within two years of the effective date of this permit the permittee shall develop, public notice, and submit to EPA for review and approval a program that establishes performance metrics for retrofit projects. The permittee shall fully implement the program upon EPA approval. The starting point for the performance metrics shall be the standard in Section 4.1.1. Performance metrics may be established generally for all retrofit projects, or for categories of projects, e.g., roads, sidewalks, parking lots, campuses. Specific site conditions may constitute justifications for setting a performance standard at something less than the standard in Section 4.1.1, and a similar calculator or algorithm process may be used in conjunction with a specific site analysis.

4.1.5.2 The permittee, with facilitation assistance from EPA Region III, will also work with major Federal landholders, such as the General Services Administration and the Department of Defense, with the objective of identifying retrofit opportunities, documenting federal commitments, and tracking pollutant reductions from relevant federal actions.

4.1.5.3 For each retrofit project estimate the potential pollutant load and volume reductions achieved through the DC Retrofit program by major waterbody (Rock Creek, Potomac, Anacostia) for the following pollutants: Bacteria (E. coli), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash. These estimates shall be included in the annual report following implementation of the project.

4.1.5.4 The DC Retrofit Program shall implement retrofits for stormwater discharges from a minimum of 18,000,000 square feet of impervious surfaces during the permit term. A minimum of 1,500,000 square feet of this objective must be in transportation rights-of-way.

4.1.5.5 No later than 18 months following issuance of this permit, the permittee shall, through its Updated DC Stormwater Regulations or other permitting or regulatory mechanisms, implement an enforceable mechanism that will adopt and implement stormwater retention requirements for properties where less than 5,000 square feet of soil is being disturbed but where the buildings or structures have a footprint that is greater than or equal to 5,000 square feet and are undergoing substantial improvement. Substantial improvement, as consistent with District regulations at 12J DCMR § 202, is any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. The characteristics of these types of projects may constitute justifications for setting a performance standard at something less than the standard in Section 4.1.1.

4.1.5.6 The permittee shall ensure that every major renovation/rehabilitation project for District-owned properties within the inventory of DRES and OPEFM (e.g., schools and school administration buildings) includes on-site stormwater retention measures, including but not

limited to green roofs, stormwater harvest/reuse, and/or other practices that can achieve the retention performance standard.

4.1.6 Tree Canopy

4.1.6.1 No later than one year following issuance of this permit, the permittee shall develop and public notice a strategy to reduce the discharge of stormwater pollutants by expanding tree canopy throughout the city. The strategy shall identify locations throughout the District where tree plantings and expanded tree boxes are technically feasible and commit to specific schedules for implementation at locations throughout the District, with highest priority given to projects that offer the greatest stormwater retention potential. The strategy shall also include the necessary elements to achieve the requirements of Section 4.1.6.2.

4.1.6.2 The permittee shall achieve a minimum net annual tree planting rate of 4,150 plantings annually within the District MS4 area, with the objective of a District-wide urban tree canopy coverage of 40% by 2035. The annual total tree planting shall be calculated as a net increase, such that annual mortality is also included in the estimate. The permittee shall ensure that trees are planted and maintained, including requirements for adequately designed and sized tree boxes, to achieve optimal stormwater retention and tree survival rate. Trees shall be planted in accordance with the Planting Specifications issued by the International Society of Arboriculture as appropriate to the site conditions.

4.1.6.3 The permittee shall annually document the total trees planted and make an annual estimate of the volume of stormwater that is being removed from the MS4 (and combined system, as relevant) in a typical year of rainfall as a result of the maturing tree canopy over the life of the MS4 permit. Also report annually on the status of achieving 40% canopy District-wide.

4.1.7 Green Roof Projects

4.1.7.1 Complete a structural assessment of all District properties maintained by DRES and slated for redevelopment to determine current roof conditions and the feasibility for green roof installation. These assessments shall be performed on an ongoing basis for all properties as they are considered for redevelopment. Based on the structural assessment and other factors, identify all District-owned properties where green roof projects are technically feasible and commit to specific schedules for implementing these projects. Highest priority shall be given to projects that offer the greatest stormwater capture potential.

4.1.7.2 The permittee shall install at a minimum 350,000 square feet of green roofs on District properties during the term of the permit (including schools and school administration buildings).

4.1.7.3 Document the square footage of green roof coverage in the District, whether publicly or privately owned, report any incentive programs implemented during the permit term, and estimate the volume of stormwater that is being removed from the MS4 (and combined

system, as relevant) in a typical year of rainfall as a result of the combined total green roof facilities in the District.

4.2 Operation and Maintenance of Stormwater Capture Practices

4.2.1 District Owned and Operated Practices.

Within two years of the effective date of this permit, develop and implement operation and maintenance protocols and guidance for District-owned and operated on-site retention practices (development and retrofits) to include maintenance needs, inspection frequencies, estimated maintenance frequencies, and a tracking system to document relevant information. Provide training to all relevant municipal employees and contractors, with regular refreshers, as necessary.

4.2.2 Non-District Owned and Operated Practices.

In conjunction with updating of relevant ordinances and policies, develop accountability mechanisms to ensure maintenance of stormwater control measures on non-District property. Those mechanisms may include combinations of deed restrictions, ordinances, maintenance agreements, or other policies deemed appropriate by the permittee. The permittee must also include a long-term verification process of O&M, which may include municipal inspections, 3rd party inspections, owner/operator certification on a frequency deemed appropriate by the permittee, and/or other mechanisms. The permittee must continue to maintain an electronic inventory of practices on private property to include this information.

4.2.3 Stormwater Management Guidebook and Training

4.2.3.1 No later than 18 months from the permit issuance date, the permittee shall finalize a Stormwater Management Guidebook to be available for wide-spread use by land use planners and developers. The Stormwater Management Guidebook shall provide regular updates, as applicable, in a format that facilitates such regular updates, and shall include objectives and specifications for integration of stormwater management technologies, including on site retention practices, in the areas of:

- a. Site Assessment.
- b. Site Planning and Layout.
- c. Vegetative Protection, Revegetation, and Maintenance.
- d. Techniques to Minimize Land Disturbance.
- e. Techniques to Implement Measures at Various Scales.
- f. Integrated Water Resources Management Practices.
- g. Designing to meet the required performance standard(s).
- h. Flow Modeling Guidance.
- i. Hydrologic Analysis.
- j. Construction Considerations.
- k. Operation and Maintenance

4.2.3.2 The permittee shall continue to provide key industry, regulatory, and other stakeholders with information regarding objectives and specifications of green infrastructure practices contained in the Stormwater Management Guidebook through a training program. The Stormwater Management training program will include at a minimum the following:

- a. Stormwater management/green technology practices targeted sessions and materials for builders, design professionals, regulators, resource agencies, and stakeholders.
- b. Materials and data from stormwater management/green technology practices pilot projects and demonstration projects including case studies.
- c. Design and construction methods for integration of stormwater management/green technology practices measures at various project scales.
- d. Guidance on performance and cost of various types of stormwater management/green technology practices measures in the District.

4.3 Management of for District Government Areas

Procedures to reduce the discharge of pollutants in stormwater runoff shall include, but not be limited to:

4.3.1 Sanitary Sewage System Maintenance Overflow and Spill Prevention Response

The permittee shall implement an effective response protocol for overflows of the sanitary sewer system into the MS4. The response protocol shall clearly identify agencies responsible and telephone numbers and e-mail for any contact and shall contain at a minimum, procedures for:

1. Investigating any complaints received within 24 hours of the incident report.
2. Responding within two hours to overflows for containment.
3. Notifying appropriate sewer and public health agencies within 24 hours when the sanitary sewer overflows to the MS4.
4. Notifying the public in a timely and effective manner when SSO discharges to the MS4 may adversely affect public health.

This provision in no way authorizes sanitary sewer overflow discharges either directly or via the MS4.

4.3.2 Public Construction Activities Management

The permittee shall implement and comply with the Development and Redevelopment and the Construction requirements in Part 4.6 of this permit at all permittee-owned or operated public construction projects.

The permittee shall obtain discharge authorization under the applicable EPA Construction General permit for construction activities and comply with provisions therein.

4.3.3 Vehicle Maintenance/Material Storage Facilities/ Municipal Operations.

The permittee shall implement stormwater pollution prevention measures at all permittee-owned, leased facilities and job sites including but not limited to vehicle/ equipment maintenance facilities, and material storage facilities.

For vehicle and equipment wash areas and municipal facilities constructed, redeveloped, or replaced, the permittee shall eliminate discharges of wash waters from vehicle and equipment washing into the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:

1. Self-contain, and haul off-site for disposal;
2. Equip with a clarifier; or
3. Equip with an alternative pre-treatment device.

4.3.4 Landscape and Recreational Facilities Management, Pesticide, Herbicide, Fertilizer and Landscape Irrigation

4.3.4.1 The permittee shall further reduce pollutants and pollutant discharges associated with the storage and application of pesticides, fertilizers, herbicides, the use of other toxic substances and landscape irrigation according to an integrated pest management program (IPM). The IPM shall be an ecosystem based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, use of resistant varieties, and use of low or no chemical and irrigation input landscapes, in accordance with the provisions of this permit, procedures and practices described in the SWMP and regulations.

The permittee shall further utilize IPM controls to reduce pollutants related to the storage and application of pesticides, herbicides, and fertilizers applied by employees or contractors, to public rights-of-way, parks, and other District property to ensure that:

- a. Pesticides are used only if monitoring indicates they are needed according to established guidelines;
- b. Fertilizers are used only when soil tests indicate that they are necessary, and only in minimum amounts and for needed purposes (e.g., seed germination).
- c. Treatments are made with the purpose of removing only the target organism;
- d. Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment;
- e. No pesticides or fertilizers are applied to an area immediately prior to an expected rain event, or during or immediately following a rain event, or when water is flowing off the area;

- f. No banned or unregistered pesticides are stored or applied;
- g. All staff applying pesticides are certified or are under the direct supervision of a pesticide applicator certified in the appropriate category;
- h. Procedures are implemented to encourage the retention and planting of native and/or non-invasive, naturalized vegetation to reduce water, pesticide and fertilizer needs;
- i. Pesticides and fertilizers are stored indoors or under cover on paved surfaces or enclosed in secondary containment and storage areas inspected regularly to reduce the potential for spills; and
- j. Landscapes that maximize on-site retention of stormwater, while minimizing mowing, chemical inputs and irrigation are given preference for all new landscape installation.

4.3.4.2 The permittee shall coordinate internally among departments for the purpose of ensuring that pesticide and fertilizer use within its jurisdiction does not threaten water quality.

4.3.4.3 The permittee shall partner with other organizations to ensure that pesticide and fertilizer use within their jurisdiction does not threaten water quality.

4.3.4.4 The permittee shall continue to conduct education and outreach, as well as provide incentives, to curtail the use of turf-grass fertilizers for the purpose of reducing nitrogen and phosphorous discharges to surface waters. The program shall incentivize the use of vegetative landscapes other than turf grass and other measures to restrict the use of turf grass fertilizers.

4.3.4.5 The permittee shall use GIS layers of public land and sewersheds, as well as background data, to identify priority areas for a targeted strategy to reduce the sources of pesticides, herbicides, and fertilizers that contaminate the stormwater runoff, and report progress toward completing the screening characterization in the next Updated SWMP.

4.3.4.6 The permittee shall include in each Annual Report a report on the implementation of the above application procedures, a history of the improvements in the control of these materials, and an explanation on how these procedures will meet the requirements of this permit.

4.3.5 Storm Drain System Operation and Management and Solids and Floatables Reduction

4.3.5.1 Within 18 months of the effective date of this permit, the permittee shall complete, public notice and submit to EPA for review and approval a plan for optimal catch basin inspections, cleaning and repairs. The permittee shall fully implement the plan upon EPA approval.

4.3.5.2 Until such time as the catch basin maintenance study has been completed and approved, the permittee shall ensure that each catch basin within the DC MS4 Permit Area is cleaned at least once annually during the life of the permit. The permittee shall continue to use strategies for coordinated catch basin cleaning and street-sweeping that will optimize reduction of stormwater pollutants.

4.3.5.3 Within 18 months of the effective date of this permit, and consistent with the 2006 Outfall Survey, the permittee shall complete, public notice and submit to EPA for review and approval an outfall repair schedule to ensure that approximately 10% of all outfalls needing repair are repaired annually, with the overall objective of having all outfalls in good repair by 2022. This schedule may be combined with the catch basin maintenance study outlined in 4.3.5.1. The repair schedule shall be fully implemented upon EPA approval.

4.3.5.4 The permittee shall comply with the Anacostia River Trash TMDL implementation provisions in Part 4.10 of this permit and apply the technologies and other activities developed in the Anacostia River Watershed Trash TMDL throughout the entire MS4 Permit Area. The permittee shall continue to report the progress of trash reduction in the Consolidated Annual Report.

4.3.6 Streets, Alleys and Roadways

4.3.6.1 Street sweeping shall be conducted on no less than 641 acres of roadway in the MS4 area annually in accordance with the following schedule:

TABLE 3
Street Sweeping

Area/Street Classification	Frequency
Arterials-heavily developed commercial and central business districts with considerable vehicular and pedestrian traffic	At least nine (9) times per year
Industrial areas	At least six (6) times per year
Residential-residential areas with limited throughway and pedestrian traffic AND neighborhood streets which are used for local purposes only	At least four (4) times per year
Central Business District/Commercial-neighborhood business districts and main streets with moderate vehicular and pedestrian traffic	At least one (1) time every two weeks

Environmental hot spots in the Anacostia River Watershed	At least two (2) times per month March through October
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4.3.6.2 Standard road repair practices shall include limiting the amount of soil disturbance to the immediate area under repair. Stormwater conveyances which are denuded shall be resodded, reseeded and mulched, or otherwise stabilized for rapid revegetation, and these areas should have effective erosion control until stabilized.

4.3.6.3 The permittee shall continue to evaluate and update the use, application and removal of anti-icers, chemical deicers, salt, sand, and/or sand/deicer mixtures in an effort to minimize the impact of these materials on water quality. The permittee shall investigate and implement techniques available for reducing pollution from deicing salts in snowmelt runoff and runoff from salt storage facilities. The permittee shall evaluate and implement the use of porous/permeable surfaces that require less use of deicing materials and activities. This evaluation shall be made a part of an overall investigation of ways to meet the requirements of the Clean Water Act and reported in each Annual Report.

4.3.6.4 The permittee shall continue to implement and update a program to ensure that excessive quantities of snow and ice control materials do not enter the District's water bodies. The permittee shall report its progress in implementing the program in each Annual Report. Except during a declared Snow Emergency when the permittee determines that the foremost concern of snow removal activities is public health and safety, it shall avoid snow dumping or storage in areas adjacent to water bodies, wetlands, and areas near public or private drinking water wells which would ultimately reenter the MS4.

4.3.7 Infrastructure Maintenance/Pollution Source Control Maintenance

The permittee shall continue to implement an operation and maintenance program that incorporates good housekeeping components at all municipal facilities located in the DC MS4 Permit Area, including but not limited to; municipal waste water treatment facility, potable drinking water facility, municipal fleet operations, maintenance garages, parks and recreation, street and infrastructure maintenance, and grounds maintenance operations, libraries and schools. The permittee shall document the program in the Annual Report, as required at Section 6.2 herein. The permittee shall, at a minimum:

1. Continue to implement maintenance standards at all municipal facilities that will protect the physical, chemical and biological integrity of receiving waters.
2. Continue to implement an inspection schedule in which to perform inspections to determine if maintenance standards are being met. Inspections shall be performed no less than once per calendar year and shall provide guidance in Stormwater Pollution Prevention Plan development and implementation, where needed.

3. Continue to implement procedures for record keeping and tracking inspections and maintenance at all municipal facilities.
4. Continue to implement an inspection and maintenance program for all permittee-owned management practices, including post-construction measures.
5. Continue to ensure proper operation of all treatment management practices and maintain them as necessary for proper operation, including all post-construction measures.
6. Ensure that any residual water following infrastructure maintenance shall be self-contained and disposed of legally in accordance with the Clean Water Act.

4.3.8 Public Industrial Activities Management/Municipal and Hazardous Facilities

For any municipal activity associated with industrial activity, as defined by 40 C.F.R. § 122.26, which discharges stormwater to, from and through the DC MS4, the permittee shall obtain separate coverage under either: (1) the EPA Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) (As modified May 27, 2009); or (2) an individual permit.

4.3.9 Emergency Procedures

The permittee may conduct repairs of essential public service systems and infrastructure in emergency situations. An emergency includes only those situations included as conditions necessary for demonstration of an upset at 40 C.F.R. 122.41(n). For each claimed emergency, the permittee shall submit to the Permitting Authority a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality, no later than required by applicable Clean Water Act regulations.

4.3.10 Municipal Official Training

The permittee shall continue to implement an on-going training program for those employees specified below, and any other employees whose job functions may impact stormwater program implementation. The training program shall address the importance of protecting water quality, the requirements of this permit, design, performance, operation and maintenance standards, inspection procedures, selecting appropriate management practices, ways to perform their job activities to prevent or minimize impacts to receiving waters, and procedures for tracking, inspecting and reporting, including potential illicit discharges. The permittee shall provide follow-up and refresher training at a minimum of once every twelve months, and shall include any changes in procedures, techniques or requirements.

The training program shall include, but is not limited to, those employees who work in the following areas:

1. Municipal Planning
 2. Site plan review
 3. Design
 4. Construction
 5. Transportation planning and engineering
 6. Street/sewer and right-of-way construction and maintenance
 7. Water and sewer departments
 8. Parks and recreation department
 9. Municipal water treatment and waste water treatment
 10. Fleet maintenance
 11. Fire and police departments
 12. Building maintenance and janitorial
 13. Garage and mechanic crew
 14. Contractors and subcontractors who may be contracted to work in the above described
 15. areas
 16. Personnel responsible for answering questions about the permittee's stormwater program,
 17. including persons who may take phone calls about the program
 18. Any other department of the permittee that may impact stormwater runoff
- 4.4 Management of Commercial and Institutional Areas

The permittee shall establish and implement policies and procedures to reduce the discharge of pollutants in stormwater runoff from all commercial and institutional (including federal) areas covered by this permit.

The permittee shall ensure maintenance of all stormwater management controls in commercial and institutional land areas in accordance with the following provisions:

1. Tracking all controls;
2. Inspecting all controls on a regular basis, according to an inspection schedule;
3. Ensure compliance with the MS4 permit and municipal ordinances at commercial and institutional facilities.

4.4.1 Inventory of Critical Sources and Source Controls

4.4.1.1 The permittee shall continue to maintain a watershed-based inventory or database of all facilities within its jurisdiction that are critical sources of stormwater pollution. Critical sources to be tracked shall include the following:

- a. Automotive service facilities, *e.g.*, service, fueling and salvage facilities;
- b. Industrial activities, as defined at 40 C.F.R. §§ 122.26(b)(14); and
- c. Construction sites exceeding one acre, or sites under one acre that are part of a larger common plan of development.
- d. Dry cleaners

- e. Any other facility the permittee has identified as a Critical Source

4.4.1.2 The permittee shall include the following minimum fields of information for each industrial and commercial facility identified as a critical source:

- a. Name of facility and name of owner/ operator;
- b. Address of facility;
- c. Size of facility; and
- d. Activities conducted at the facility that could impact stormwater.
- e. Practices and/or measures to control pollutants.
- f. Inspection and maintenance schedules, dates and findings.

4.4.1.3 The permittee shall update its inventory of critical sources at least annually. The update may be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (*e.g.*, business licenses, pretreatment permits, sanitary sewer hook-up permits, and similar information).

4.4.2 Inspection of Critical Sources

The permittee shall continue to inspect all commercial facilities identified in Part 4.4.1. herein and any others found to be critical sources twice during the five-year term of the permit. A minimum interval of six months between the first and the second mandatory compliance inspection is required, unless a follow-up inspection to ensure compliance must occur sooner.

4.4.3 Compliance Assurance.

At each facility identified as a critical source, the permittee's inspector(s) shall verify that the operator is implementing a control strategy necessary to protect water quality. Where the permittee determines that existing measures are not adequate to protect water quality, the permittee shall require additional site-specific controls sufficient to protect water quality.

4.5 Management of Industrial Facilities and Spill Prevention

4.5.1 The permittee shall continue to implement a program to monitor and control pollutants in stormwater discharged from Industrial Facilities located within the MS4 Permit Area, as defined herein, pursuant to the requirements in 40 C.F.R. § 122.26(d)(2)(iv)(C). These facilities shall include, but are not limited to:

- a. Private Solid Waste Transfer Stations
- b. Hazardous Waste Treatment, Disposal, and/or Recovery Plants
- c. Industrial Facilities subject to SARA or EPCRA Title III
- d. Industrial Facilities with NPDES Permits
- e. Industrial facilities with a discharge to the MS4

4.5.2 The permittee shall continue to maintain and update the industrial facilities database.

4.5.3 The permittee shall continue to perform or provide on-site assistance/inspections and outreach focused on the development of stormwater pollution prevention plans and NPDES permit compliance.

4.5.4 The permittee shall continue to refine and implement procedures to govern the investigation of facilities suspected of contributing pollutants to the MS4, including at a minimum: (i) a review, if applicable, of monitoring data collected by the facility pursuant to its NPDES permit; and (ii) wet weather screening as required by Part 5.2.1 herein (including collecting data on discharges from industrial sites). These procedures shall be submitted as part of each Annual Report required by Part 6.2 herein.

4.5.5 The permittee shall continue to implement the prohibition against illicit discharges, control spills, and prohibit dumping. Continue to implement a program to prevent, contain, and respond to spills that may discharge to the MS4, and report on such implementation submitted in each Annual Report. The spill response program may include a combination of spill response actions by the permittee and/or another public or private entity.

4.5.6 The permittee shall report progress in developing and carrying out industrial-related programs in each Annual Report required by Section 6 herein. Provide an explanation as to how the implementation of these procedures will meet the requirements of the Clean Water Act.

4.6 Stormwater Management for Construction Sites

4.6.1 Continue implementation of the Program that reduces the discharge of pollutants from construction sites. In each Annual Report, the permittee shall evaluate and report to determine if the existing practices meet the requirements of 40 C.F.R. § 122.26(d)(2)(iv)(A) and (D).

4.6.2 Continue the review and approval process of the sediment and erosion control plans under this program. Also, the permittee shall ensure that all construction projects impacting one acre or greater, or less than one acre when part of a larger common plan of development or sale equal to or larger than one acre, are not authorized until documentation is provided that they have received EPA NPDES Construction General Permit Coverage.

4.6.3 Continue to implement inspection and enforcement procedures, including but not limited to inspection of permitted construction sites that disturb more than 5,000 square feet of soil as follows:

1. First inspection prior to ground disturbing activities to review planned sediment and erosion control measures;
2. Second inspection to verify proper installation and maintenance of sediment and erosion control measures;

3. Third inspection to review planned installation and maintenance of stormwater management practices;
4. Fourth inspection to verify proper installation of stormwater management practices following final stabilization of the project site; and
5. Other inspections as necessary to ensure compliance with relevant standards and requirements.

4.6.4 When a violation of local erosion and sediment control ordinances occurs, the permittee shall follow existing enforcement procedures and practices using standardized reports as part of the inspection process to provide accurate record keeping of inspections of construction sites. The permittee shall use a listing of all violations and enforcement actions to assess the effectiveness of the Enforcement Program in each Annual Report.

4.6.5 Continue with educational measures for construction site operators (Section 4.9 of this permit) that consist, at a minimum, of providing guidance manuals and technical publications.

4.6.6 Report progress in developing and carrying out the above construction-related programs in each Annual Report required by Parts 6.2 herein, including: (i) an explanation as to how the implementation of these procedures will meet the requirements of the Clean Water Act; (ii) an explanation as to how the implementation of these procedures, particularly with regard to District “waivers and exemptions”, will meet the requirements of the Clean Water Act; and (iii) discussion of progress toward meeting TMDL and the District Watershed Implementation Plan deadlines.

4.7 Illicit Discharges and Improper Disposal.

4.7.1 The permittee shall continue to implement an ongoing program to detect illicit discharges, pursuant to the SWMP, and Part 4 of this permit, and to prevent improper disposal into the storm sewer system, pursuant to 40 C.F.R. § 122.26(d)(2)(iv)(B)(1). Such program shall include, at a minimum the following:

- a. An updated schedule of procedures and practices to prevent illicit discharges, as defined at 40 C.F.R. § 122.26(b)(2), and, pursuant to 40 C.F.R. § 122.26(d)(2)(iv)(B)(1), to detect and remove illicit discharges as defined herein;
- b. An updated inventory (organized by watershed) of all outfalls that discharge through the MS4 including any changes to the identification and mapping of existing permitted outfalls. Such inventory shall include, but not be limited to, the name and address, and a description (such as SIC code) which best reflects the principal products or services provided by each facility which may discharge to the MS4;
- c. Continue to implement an illicit connection detection and enforcement program to perform dry weather flow inspections in target areas;

- d. Visual inspections of targeted areas;
- e. Issuance of fines, tracking and reporting illicit discharges, and reporting progress on stopping targeted illicit discharges, and in appropriate cases, chemical testing immediately after discovery of an illicit discharge;
- f. Enforcement procedures for illicit discharges set forth in Part 4 herein;
- g. All necessary inspection, surveillance, and monitoring procedures to remedy and prevent illicit discharges. The permittee shall submit an inspection schedule, inspection criteria, documentation regarding protocols and parameters of field screening, and allocation of resources as a part of each Annual Report.
- h. The permittee shall continue to implement procedures to prevent, contain, and respond to spills that may discharge into the MS4. The permittee shall provide for the training of appropriate personnel in spill prevention and response procedures.
- i. The permittee shall report the accomplishments of this program in each Annual Report.

4.7.2 The permittee shall continue to ensure the implementation of a program to further reduce the discharge of floatables (e.g. litter and other human-generated solid refuse). The floatables program shall include source controls and, where necessary, structural controls.

4.7.3 The permittee shall continue to implement the prohibition against the discharge or disposal of used motor vehicle fluids, household hazardous wastes, grass clippings, leaf litter, and animal waste into separate storm sewers. The permittee shall ensure the implementation of programs to collect used motor vehicle fluids (at a minimum oil and anti-freeze) for recycle, reuse, and proper disposal and to collect household hazardous waste materials (including paint, solvents, pesticides, herbicides, and other hazardous materials) for recycle, reuse, or proper disposal. The permittee shall ensure that such programs are readily available within the District, and that they are publicized and promoted on a regular basis, pursuant to Public Education provisions in this permit at Part 4.9 herein.

4.7.4 The permittee shall continue to work with members of the Metropolitan Police Department to enhance illegal dumping enforcement.

4.7.5 The permittee shall implement the District's ban on coal tar pavement products, including conducting outreach and enforcement activities.

4.7.6 The permittee shall implement the Anacostia Clean Up and Protection Act of 2009, to ban the use of disposable non-recyclable plastic carryout bags and restrict the use on disposable carryout bags in certain food establishments.

4.8 Flood Control Projects

4.8.1 The permittee shall update the impervious surface analysis of floodplains six months after the approval of the revised Flood Insurance Rate Maps by the Federal Emergency Management Agency.

4.8.2 The permittee shall assess potential impacts on the water quality and the ability of the receiving water to support beneficial uses for all flood management projects. Evaluate the feasibility of retrofitting existing flood control devices to provide additional pollutant and volume removal from stormwater. Report results of such assessment, mapping program, and feasibility studies in the Annual Report (Part 6.2 herein).

4.8.3 The permittee shall review all development proposed in flood plain areas to ensure that the impacts on the water quality of receiving water bodies have been properly addressed. Information regarding impervious surface area located in the flood plains shall be used (in conjunction with other environmental indicators) as a planning tool. The permittee shall collect data on the percentage of impervious surface area located in flood plain boundaries for all proposed development beginning six months after the effective date of this permit. The permittee shall collect similar data for existing development in flood plain areas, in accordance with the mapping program and other activities designed to improve water quality. Critical unmapped areas shall be prioritized by the permittee with an emphasis on developed and developing acreage. Reports of this work shall be summarized in the Annual Report.

4.9 Public Education and Public Participation

The permittee shall continue to implement a public education program including but not limited to an education program aimed at residents, businesses, industries, elected officials, policy makers, planning staff and other employees of the permittee. The purpose of education is to reduce or eliminate behaviors and practices that cause or contribute to adverse stormwater impacts. Education initiatives may be developed locally or regionally.

4.9.1 Education and Outreach.

4.9.1.1 The permittee shall continue to implement its education and outreach program for the area served by the MS4 that was established during the previous permit cycle. The outreach program shall be designed to achieve measurable improvements in the target audience's understanding of stormwater pollution and steps they can take to reduce their impacts.

4.9.1.2 The permittee shall assess current education and outreach efforts and identify areas where additional outreach and education are needed. Audiences and subject areas to be considered include:

a. General public

- 1) General impacts of stormwater flows into surface waters
- 2) Impacts from impervious surfaces
- 3) Source control practices and environmental stewardship actions and opportunities in the areas of pet waste, vehicle maintenance, landscaping, and rain water reuse.

- 4) A household hazardous waste educational and outreach program to control illicit discharges to the MS4 as required herein
- 5) Information and education on proper management and disposal of used oil, other automotive fluids, and household chemicals
- 6) Businesses, including home-based and mobile businesses
- 7) Management practices for use and storage of automotive chemicals, hazardous cleaning supplies, carwash soaps and other hazardous materials
- 8) Impacts of illicit discharges and how to report them including information for industries about stormwater permitting and pollution prevention plans and the requirement that they develop structural and non-structural control systems

b. Homeowners, landscapers and property managers

- 1) Use of low or no phosphorus fertilizers, alternatives to fertilizers, alternative landscaping requiring no fertilizers
- 2) Landscape designs to reduce runoff and pollutant loadings
- 3) Car washing alternatives with the objective of eliminating phosphorus detergent discharges
- 4) Yard care techniques that protect water quality
- 5) Management practices for use and storage of pesticides and fertilizers
- 6) Management practices for carpet cleaning and auto repair and maintenance
- 7) Runoff Reduction techniques, including site design, on-site retention, pervious paving, retention of forests and mature trees
- 8) Stormwater pond maintenance

c. Engineers, contractors, developers, review staff and land use planners

- 1) Technical standards for construction site sediment and erosion control
- 2) Runoff Reduction techniques, including site design, on-site reduction, pervious pavement, alternative parking lot design, retention of forests and mature trees
- 3) Stormwater treatment and flow control controls
- 4) Impacts of increased stormwater flows into receiving water bodies

4.9.2 Measurement of Impacts.

The permittee shall continue to measure the understanding and adoption of selected targeted behaviors among the targeted audiences. The resulting measurements shall be used to direct education and outreach resources most effectively, as well as to evaluate changes in adoption of the targeted behaviors.

4.9.3 Recordkeeping.

The permittee shall track and maintain records of public education and outreach activities.

4.9.4 Public Involvement and Participation.

The permittee shall continue to include ongoing opportunities for public involvement through advisory councils, watershed associations and/or committees, participation in developing updates to the stormwater fee system, stewardship programs, environmental activities or other similar activities. The permittee shall facilitate opportunities for direct action, educational, and volunteer programs such as riparian planting, volunteer monitoring programs, storm drain marking or stream clean up programs.

4.9.4.1 The permittee shall continue to create opportunities for the public to participate in the decision making processes involving the implementation and update of the permittee's SWMP. In particular, the permittee shall provide meaningful opportunity for the public to participate in the development of the permittee's Consolidated TMDL Implementation Plan. The permittee shall continue to implement its process for consideration of public comments on their SWMP.

4.9.4.2 The permittee shall continue to establish a method of routine communication to groups such as watershed associations and environmental organizations that are located in the same watershed(s) as the permittee, or organizations that conduct environmental stewardship projects located in the same watershed(s) or in close proximity to the permittee. This is to make these groups aware of opportunities for their direct involvement and assistance in stormwater activities that are in their watershed.

4.9.4.3 The permittee shall make all draft and approved MS4 documents required under this permit available to the public for comment. The current draft and approved SWMP and the MS4 annual reports deliverable documents required under this permit shall be posted on the permittee's website.

4.9.4.4 The permittee shall continue to develop public educational and participation materials in cooperation and coordination with other agencies and organizations in the District with similar responsibilities and objectives. Progress reports on public education shall be included in the Annual Report. An explanation shall be provided as to how this effort will reduce pollution loadings to meet the requirements of this permit.

4.9.4.5 The permittee shall periodically, and at least annually, update its website.

4.10 Total Maximum Daily Load (TMDL) Wasteload Allocation (WLA) Planning and Implementation

4.10.1 Anacostia River Watershed Trash TMDL Implementation

The permittee shall attain removal of 103,188 pounds of trash annually, as determined in the Anacostia River Watershed Trash TMDL, as a specific single-year measure by the fifth year of this permit term.

Reductions must be made through a combination of the following approaches:

1. Direct removal from waterbodies, e.g., stream clean-ups, skimmers
2. Direct removal from the MS4, e.g., catch basin clean-out, trash racks
3. Direct removal prior to entry to the MS4, e.g., street sweeping
4. Prevention through additional disposal alternatives, e.g., public trash/recycling collection
5. Prevention through waste reduction practices, regulations and/or incentives, e.g., bag fees

At the end of the first year the permittee must submit the trash reduction calculation methodology with Annual Report to EPA for review and approval. The methodology should accurately account for trash prevention/removal methods beyond those already established when the TMDL was approved, which may mean crediting a percentage of certain approaches. The calculation methodology must be consistent with assumptions for weights and other characteristics of trash, as described in the 2010 Anacostia River Watershed Trash TMDL.

Annual reports must include the trash prevention/removal approaches utilized, as well as the overall total weight (in pounds) of trash captured for each type of approach.

The requirements of this Section, and related elements as appropriate, shall be included in the Consolidated TMDL Implementation Plan (Section 4.10.3).

4.10.2 Hickey Run TMDL Implementation

The permittee shall implement and complete the proposed replacement/rehabilitation, inspection and enforcement, and public education aspects of the strategy for Hickey Run as described in the updated Plan to satisfy the requirements of the oil and grease wasteload allocations for Hickey Run. If monitoring or other assessment determine it to be necessary, the permittee shall install or implement appropriate controls to address oil & grease in Hickey Run no later than the end of this permit term. As appropriate, any requirement of this Section not completed prior to finalization of the Consolidated TMDL Implementation Plan (Section 4.10.3) shall be included in that Plan.

4.10.3 Consolidated TMDL Implementation Plan

For all TMDL wasteload allocations assigned to District MS4 discharges, the permittee shall develop, public notice and submit to EPA for review and approval a consolidated TMDL Implementation Plan within 30 months of the effective date of this permit provision. This Plan shall include, at a minimum, the following TMDLs and any subsequent updates:

1. TMDL for Biochemical Oxygen Demand (BOD) in the Upper and Lower Anacostia River (2001)
2. TMDL for Fecal Coliform Bacteria in the Upper and Lower Anacostia River (2003)
3. TMDL for Organics and Metals in the Anacostia River and Tributaries (2003)
4. TMDL for Fecal Coliform Bacteria in Kingman Lake (2003)
5. TMDL for Total Suspended Solids, Oil and Grease and Biochemical Oxygen Demand in Kingman Lake (2003)

6. TMDL for Fecal Coliform Bacteria in Rock Creek (2004)
7. TMDL for Organics and Metals in the Tributaries to Rock Creek (2004)
8. TMDL for Fecal Coliform Bacteria in the Upper, Middle and Lower Potomac River and Tributaries (2004)
9. TMDL for Organics, Metals and Bacteria in Oxon Run (2004)
10. TMDL for Organics in the Tidal Basin and Washington Ship Channel (2004)
11. TMDL for Sediment/Total Suspended Solids for the Anacostia River Basin in Maryland and the District (2007) [pending resolution of court vacature, *Anacostia Riverkeeper, Inc. v. Jackson*, No. 09-cv-97 (RCL)]
12. TMDL for PCBs for Tidal Portions of the Potomac and Anacostia Rivers in the District of Columbia, Maryland and Virginia (2007)
13. TMDL for Nutrients/Biochemical Oxygen Demand for the Anacostia River Basin in Maryland and the District (2008)
14. TMDL for Trash for the Anacostia River Watershed, Montgomery and Prince George's Counties, Maryland and the District of Columbia (2010)
15. TMDL for Nitrogen, Phosphorus and Sediment for the Chesapeake Bay Watershed (2010)

This Plan shall place particular emphasis on the pollutants in Table 4, but shall also evaluate other pollutants of concern for which relevant WLAs exist. EPA will incorporate elements of the Consolidate TMDL Implementation Plan as enforceable permit provisions, including milestones and final dates for attainment of applicable WLAs. The permittee shall fully implement the Plan upon EPA approval. This Plan shall preempt any existing TMDL implementation plans for the relevant WLAs. To account for any new or revised TMDL established or approved by EPA with wasteload allocations assigned to District MS4 discharges, the permittee shall submit an updated Consolidated TMDL Implementation Plan annually, as necessary. Such updates will account for any actions taken in the 12-month period preceding the date 6 months before the revision is due. If necessary, the first such update will be due 18 months after the submittal of the initial Plan, with subsequent updates due on the anniversary of the submittal date.

The Plan shall include:

1. A specified schedule for attainment of WLAs that includes final attainment dates and, where applicable, interim milestones and numeric benchmarks.
 - a. Numeric benchmarks will specify annual pollutant load reductions and the extent of control actions to achieve these numeric benchmarks.
 - b. Interim milestones will be included where final attainment of applicable WLAs requires more than five years. Milestone intervals will be as frequent as possible but will in no case be greater than five (5) years.
2. Demonstration using modeling of how each applicable WLA will be attained using the chosen controls, by the date for ultimate attainment.
3. An associated narrative providing an explanation for the schedules and controls included in the Plan.

4. Unless and until an applicable TMDL is no longer in effect (e.g., withdrawn, reissued or the water delisted), the Plan must include the elements in 1-3 above for each TMDL as approved or established.
5. The current version of the Plan will be posted on the permittee's website.

4.10.4 Adjustments to TMDL Implementation Strategies

If evaluation data, as outlined in the monitoring strategy being developed per Part 5.1, indicate insufficient progress towards attaining any WLA covered in 4.10.1, 4.10.2 or 4.10.3, the permittee shall make the appropriate adjustments within six (6) months to address the insufficient progress and document those adjustments in the Consolidated TMDL Implementation Plan. The Plan modification shall include a reasonable assurance demonstration of the additional controls to achieve the incorporated milestones. Annual reports must include a description of progress as evaluated against all implementation objectives, milestones and benchmarks, as relevant, outlined in Part 4.10.

4.11 Additional Pollutant Sources

For any additional pollutant sources not addressed in sections 4.1 through 4.9, the permittee shall continue to compile pertinent information on known or potential pollution sources, including significant changes in:

1. land use activities,
2. population estimates,
3. runoff characteristics,
4. major structural controls,
5. landfills,
6. publicly owned lands, and
7. industries impacting the MS4.

For purposes of this section, “significant changes” are changes that have the potential to revise, enhance, modify or otherwise affect the physical, legal, institutional, or administrative characteristics of the above-listed potential pollution sources. This information shall be submitted in each of the Annual Reports submitted to EPA pursuant to the procedures in Part 6.2 herein. For the Stormwater Model, analysis of data for these pollution sources shall be reported according to Part 7 herein.

The permittee shall implement controls to minimize and prevent discharges of pollutants from additional pollutant sources, including but not limited to Bacteria (*E. coli*), Total Nitrogen, Total Phosphorus, Total Suspended Solids, Cadmium, Copper, Lead, Zinc, and Trash, to receiving waters. Controls shall be designed to prevent and restrict priority pollutants from coming into contact with stormwater, e.g., restricting the use of lawn fertilizers rather than end-of-pipe treatment. These strategies shall include program priorities and a schedule of activities to address those priorities and an outline of which agencies will be responsible for implementing those strategies. The strategies used to reduce or eliminate these pollutants shall be documented in updates to the Stormwater Management Program Plan.

5. MONITORING AND ASSESSMENT OF CONTROLS

5.1 Revised monitoring program

5.1.1 Design of the Revised Monitoring Program

Within 30 months of the effective date of Part 4.10.3 of this permit the permittee shall develop, public notice and submit to EPA for review and approval a revised monitoring program. The permittee shall fully implement the program upon EPA approval. The revised monitoring program shall meet the following objectives:

1. Make wet weather loading estimates of the parameters in Table 4 from the MS4 to receiving waters. Number of samples, sampling frequencies and number and locations of sampling stations must be adequate to ensure data are statistically significant and interpretable.
2. Evaluate the health of the receiving waters, to include biological and physical indicators such as macroinvertebrates and geomorphologic factors. Number of samples, frequencies and locations must be adequate to ensure data are statistically significant and interpretable for long-term trend purposes (not variation among individual years or seasons).
3. Include any additional necessary monitoring for purposes of source identification and wasteload allocation tracking. This strategy must align with the Consolidated TMDL Implementation Plan required in Part 4.10.3 For all pollutants in Table 4 monitoring must be adequate to determine if relevant WLAs are being attained within specified timeframes in order to make modifications to relevant management programs, as necessary.

Table 4
Monitoring Parameters

Parameter
<i>E. coli</i>
Total nitrogen
Total phosphorus
Total Suspended Solids
Cadmium
Copper
Lead
Zinc
Trash

4. All chemical analyses shall be performed in accordance with analytical methods approved under 40 C.F.R. Part 136. When there is not an approved analytical method, the applicant may use any suitable method as described in Section 5.7 herein, but must provide a description of the method.

5.1.2 Utilization of the Revised Monitoring Program

The permittee must use the information to evaluate the quality of the stormwater program and the health of the receiving waters at a minimum to include:

1. The permittee shall estimate annual cumulative pollutant loadings for pollutants listed in Table 4. Pollutant loadings and, as appropriate, event mean concentrations, will be reported in DMRs and annual reports on TMDL implementation for pollutants listed in Table 4 in discharges from the monitoring stations in Table 5.
2. The permittee shall perform the following activities at least once during the permit term, but no later than the fourth year of this permit:
 - a. Identify and prioritize additional efforts needed to address water quality exceedances, and receiving stream impairments and threats;
 - b. Identify water quality improvements or degradation

Upon approval of the Revised Monitoring Program by EPA Region III, or 2 years from the effective date of this permit, whichever comes first, the permittee shall begin implementation of the Revised Monitoring Program.

5.2 Interim Monitoring

Until such time as EPA has approved the Revised Monitoring Program, the permittee shall implement the following monitoring program:

5.2.1 Wet Weather Discharge Monitoring

The permittee shall monitor for the parameters identified in Table 4 herein, at the locations listed in Table 5 herein. Monitoring frequency for chemical/physical parameters shall be taken by at least three times per year at a minimum. This does not include a geomorphologic assessment and/or physical habitat assessment. The permittee shall conduct sampling as provided in 40 C.F.R. § 122.21(g)(7).

The permittee shall monitor and provide an annual Discharge Monitoring Report for the period of interim monitoring.

TABLE 5
Monitoring Stations

A. Anacostia River Sub Watershed Monitoring Sites	
1.	Gallatin Street & 14 th Street N.E. across from the intersection of 14 th St. and Gallatin St. in an outfall (MS-2)
2.	Anacostia High School/Anacostia Recreation Center – Corner of 17 th St and Minnesota Ave SE
B. Rock Creek Subwatershed Monitoring Sites	
1.	Walter Reed -- Fort Stevens Drive -- 16 th Street and Fort Stevens Road, N.W. at an outfall (MS-6)
2.	Soapstone Creek -- Connecticut Avenue and Ablemarle Street N.W. at an outfall (MS-5)
C. Potomac River Subwatershed Monitoring Sites	
1.	Battery Kemble Creek-49th and Hawthorne Streets, N.W. at an outfall (MS-4)
2.	Oxon Run-Mississippi Avenue and 15 th Street, S.E. into Oxon Run via an outfall (MS-1)

The permittee may revise this list of sites in accordance with its revised monitoring program in Section 5.1 herein. Otherwise, changes to the above MS4 monitoring stations and/or sites for any reason shall be considered a major modification to the permit subject to the reopener clause.

During the interim monitoring period for the pollutants listed in Table 4, demonstration of compliance will be calculated using the procedures identified in the SWMP, the approved Anacostia River TMDL Implementation Plan, and/or other appropriate modeling tools and data on management practices efficiencies. The annual report will provide all monitoring data, and a brief synthesis of whether the data indicate that relevant wasteload allocations and other relevant targets are being achieved.

5.2.2 Storm Event Data

In addition to the parameters listed above, the permittee shall continue to maintain records of the date and duration (in hours) of the storm events sampled; rainfall measurements or estimates (in inches) of the storm event which generated the sampled runoff; the duration (in hours) between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and a calculated flow estimate of the total volume (in gallons) and nature of the discharge sampled.

5.2.3 Sample Type, Collection, and Analysis

The following requirements apply only to samples collected for Part 5.2.1, Representative Monitoring.

1. For discharges from holding ponds or other impoundments with a retention period greater than 24 hours, (estimated by dividing the volume of the detention pond by the estimated volume of water discharged during the 24 hours previous to the time that the sample is collected) a minimum of one sample shall be taken for pollutants listed in Table 4 including temperature, DO, pH and specific conductivity. For all parameters, data shall be reported for the entire event of the discharge pursuant to 40 C.F.R. § 122.26(d)(2)(iii).
2. All such samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Samples may be taken with a continuous sampler or as a combination of a minimum of three sample aliquots taken in each hour of discharge for the entire discharge, with each aliquot being separated by a minimum period of fifteen minutes.
3. Analysis and collection of samples shall be done in accordance with the most recent EPA approved laboratory methods and procedures specified at 40 C.F.R. Part 136 and its subsequent amendments.

5.2.4 Sampling Waiver

When a discharger is unable to collect samples due to adverse climatic conditions, the discharger must submit in lieu of sampling data a description of why samples could not be collected, including available documentation of the event.

Adverse climatic conditions which may prohibit the collection of samples includes weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.).

5.3 Dry Weather Monitoring

5.3.1 Dry Weather Screening Program

The permittee shall continue with ongoing efforts to detect the presence of illicit connections and improper discharges to the MS4 pursuant to the District SWMP. The permittee shall perform the following: (1) continue to screen known problem sewersheds within the District based on past screening activities; (2) continue to inventory all MS4 outfalls in the District and inspect all outfalls by the end of the permit term; and (3) ensure that the dry weather screening program has addressed all watersheds within the permit term. The screening shall be

sufficient to estimate the frequency and volume of dry weather discharges and their environmental impact.

5.3.2 Screening Procedures

Screening may be developed and/or modified based on experience gained during actual field screening activities. The permittee shall establish a protocol which requires screening to ensure that such procedures are occurring, but such protocol need not conform to the procedures published at 40 C.F.R. § 122.26(d)(1)(iv)(D). The permittee shall describe the protocol actually used in each Annual Report with a justification for its use. The procedures described in the SWMP shall be used as guidance.

5.3.3 Follow-up on Dry Weather Screening Results

The permittee shall continue to implement its enforcement program for locating and ensuring elimination of all suspected sources of illicit connections and improper disposal identified during dry weather screening activities. The permittee shall report the results of such implementation in each Annual Report.

5.4. Area and/or Source Identification Program

The permittee shall continue to implement a program to identify, investigate, and address areas and/or sources within its jurisdiction that may be contributing excessive levels of pollutants to the MS4 and receiving waters, including but not limited to those pollutants identified in Table 4 herein.

5.5 Flow Measurements

The permittee shall continue to select and use appropriate flow measurement devices and methods consistent with accepted scientific practices to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device.

5.6 Monitoring and Analysis Procedures

5.6.1 Monitoring must be conducted according to laboratory and test procedures approved under 40 C.F.R. Part 136 and subsequent amendments, unless other test procedures have been specified in the permit.

5.6.2 The permittee is authorized to use a more current or sensitive (i.e., lower) detection method than the one identified in 40 C.F.R. Part 136 exists for a particular parameter, including but not limited to PCBs (Method 1668B) and mercury (Method 1631E). If used, the permittee shall report using the more current and/or more sensitive method for compliance reporting and monitoring purposes.

5.6.3 EPA reserves the right to modify the permit in order to require a more sensitive method for measuring compliance with any pollutant contamination levels, consistent with 40 CFR, Part 136, should it become necessary.

5.7 Reporting of Monitoring Results

The permittee shall continue to report monitoring results annually in a Discharge Monitoring Report. If NetDMR (<http://www.epa.gov/netdmr/>) is unavailable to any of the following then the original and one copy of the Report are to be submitted at the following addresses:

NPDES Permits Branch
U.S. EPA Region III (3WP41)
Water Protection Division
1650 Arch Street
Philadelphia, PA 19103-2029

National Marine Fisheries Service/Northeast Region
Protected Resource Division
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

Monitoring results obtained during the previous year shall be summarized and reported in the Annual Report.

5.8 Additional Monitoring by the Permittee

If the permittee monitors (for the purposes of this permit) any pollutant more frequently than required by this permit, using laboratory and test procedures approved under 40 C.F.R. Part 136 and subsequent amendments or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the annual Discharge Monitoring Report. Such frequency shall also be indicated.

5.9 Retention of Monitoring Information

The permittee shall continue to retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation for a period of at least five(5) years from the date of the sample, measurement or report. This period may be extended by request of EPA at any time.

5.10 Record Content

Records of monitoring information shall include:

1. The date, exact location, time and methods of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;

3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

6. **REPORTING REQUIREMENTS**

The permittee shall comply with the reporting requirements identified in this section, including but not limited to the deliverables identified in Table 6 below.

TABLE 6
Reporting Requirements

Submittal	Deadline
Discharge Monitoring Report	Each year on the anniversary of the effective date of the permit (AEDOP)
Annual Report	Each year on the AEDOP.
MS4 Permit Application	Six months prior to the permit expiration date.

6.1 Discharge Monitoring Reports

The permittee shall provide discharge monitoring reports per Part 5.7 of this permit on the quality of stormwater discharges from the MS4 for all analytical chemical monitoring stipulated in Part 5 of this permit.

6.2 Annual Reporting

The permittee shall submit an Annual Report to EPA on or by the effective yearly date of the permit for the duration of the permitting cycle. At the same time the Annual Report is submitted to EPA it shall also be posted on the permittee's website at an easily accessible location. If the annual report is subsequently modified per EPA approval (part 6.2.3 of this permit) the updated report shall be posted on the permittee's website.

6.2.1 Annual Report.

The Annual Report shall follow the format of the permit as written, address each permit requirement, and also include the following elements:

- a. A review of the status of program implementation and compliance (or non-compliance) with all provisions and schedules of compliance contained in this

- permit, including documentation as to compliance with performance standards and other provisions and deliverables contained in Section 4 herein;
- b. A review of monitoring data and any trends in estimated cumulative annual pollutant loadings, including TMDL WLAs and TMDL implementation activities;
 - c. An assessment of the effectiveness of controls established by the SWMP;
 - d. An assessment of the projected cost of SWMP implementation for the upcoming year (or longer) and a description of the permittee's budget for existing stormwater programs, including: (i) an overview of the permittee's financial resources and budget, (ii) overall indebtedness and assets, (iii) sources for funds for stormwater programs; and (iv) a demonstration of adequate fiscal capacity to meet the requirements of this permit, subject to the (a) the federal Anti-Deficiency Act, 31 U.S.C. §§ 1341, 1342, 1349, 1351, (b) the District of Columbia Anti-Deficiency Act, D.C. Official Code §§ 47-355.01-355.08 (2001), (c) D.C. Official Code § 47-105 (2001), and (d) D.C. Official Code § 1-204.46 (2006 Supp.), as the foregoing statutes may be amended from time to time;
 - e. A summary describing the number and nature of enforcement actions, inspections, and public education programs and installation of control systems;
 - f. Identification of water quality improvements or degradation through application of a measurable performance standard as stated throughout this permit;
 - g. Results of storm and water quality modeling and its use in planning installation of control systems and maintenance and other activities;
 - h. An assessment of any SWMP modifications needed to meet the requirements of this permit;
 - i. Revisions, if necessary, to the assessments of controls and the fiscal analysis reported in the permit application under 40 C.F.R. § 122.26(d)(2)(iv) and (v);
 - j. Methodology to assess the effects of the Stormwater Management Program (SWMP);
 - k. Annual expenditures and budget for the year following each annual report;
 - l. A summary of commitments for the next year and evaluation of the commitments from the previous year;
 - m. A summary of the monitoring data for stormwater and ambient sampling that is collected in the previous year and the plan, including identification of monitoring locations, to collect additional data for the next year;
 - n. The amount of impervious cover within the District, and within the three major watersheds in the District (Anacostia, Potomac and Rock Creek);
 - o. The percentage of effective impervious cover reduced annually, including but not limited to the number and square footage of green roofs installed in the District, including the square footage of drainage managed by practices that meet the performance standard in 4.1.1; and
 - p. An analysis of the work to be performed in the next successive year, including performance measures for those tasks. In the following year, progress with those performance measures shall be part of the Annual Report. The basis for each of the performance standards, which will be used as tools for evaluating environmental results and determining the success of each MS4 activity, shall be described incorporating an integrated program approach that considers all programs and projects which have a direct as well as an indirect affect on

stormwater management quantity and quality within the District. The report shall also provide an update of the fiscal analysis for each year of the permit as required by 40 C.F.R. § 122.26(d)(2)(vi).

6.2.2 Annual Report Meeting

Within 12 months of the effective date of this permit the permittee shall convene an annual report meeting with EPA to present annual progress and plans for the following year. In conjunction with this meeting the annual written report may consist of presentation materials summarizing all required elements of the annual report rather than a lengthy written report, as long as all required elements are included. Following this first annual reporting meeting EPA and the permittee shall determine if the meeting and associated presentation materials constitute an effective reporting mechanism. With the agreement of both EPA and the permittee the annual reporting meeting and the use of summarized presentation materials in lieu of a lengthy written report may be extended for the remainder of the permit term.

6.2.3 Annual Report Revisions

Each Annual Report may be revised with written approval by EPA. The revised Report will become effective after its approval.

6.2.4 Signature and Certification

The permittee shall sign and certify the Annual Report in accordance with 40 C.F.R. §122.22(b), and include a statement or resolution that the permittee's governing body or agency (or delegated representative) has reviewed or been appraised of the content of such submissions. The permittee shall provide a description of the procedure used to meet the above requirement.

6.2.5 EPA Approval

In reviewing any submittal identified in Table 1 or 6, EPA may approve or disapprove each submittal. If EPA disapproves any submittal, EPA shall provide comments to the permittee. The permittee shall address such comments in writing within thirty (30) days of receipt of the disapproval from EPA. If EPA determines that the permittee has not adequately addressed the disapproval/comments, EPA may revise that submittal or portions of that submittal. Such revision by EPA is effective thirty (30) days from receipt by the permittee. Once approved by EPA, or in the event of EPA disapproval, as revised by EPA, each submission shall be an enforceable element of this permit.

6.3 MS4 Permit Application

The permittee develop a permit Application based on the findings presented in each of the Annual SWMP Reports submitted during the permitting cycle to be submitted six months prior to the expiration date of the permit. The permit application shall define the next iterative set of objectives for the program and provide an analysis to demonstrate that these objectives will be achieved in the subsequent permit term.

7. **STORMWATER MODEL**

The permittee shall continue to update and report all progress made in developing a Stormwater Model and Geographical Information System (GIS) to EPA on an annual basis as an attachment to each Annual Report required herein.

On an annual basis, the permittee shall report on pollutant load reductions throughout the area covered by this permit using the statistical model developed by DDOE or other appropriate model. In the annual update, the permittee shall include, at a minimum, other applicable components which are not only limited to those activities identified in Section 6 herein, but which are necessary to demonstrate the effectiveness of the permittee's Stormwater Management Program toward implementing a sustainable strategy for reducing stormwater pollution runoff to the impaired waters of the District of Columbia.

Assess performance of stormwater on-site retention projects through monitoring, modeling and/or estimating storm retention capacity to determine the volume of stormwater removed from the MS4 in a typical year of rainfall as a result of implementing stormwater controls. This provision does not require all practices to be individually monitored, only that a reasonable evaluation strategy must provide estimates of overall volume reductions by sewershed.

8. **STANDARD PERMIT CONDITIONS FOR NPDES PERMITS**

8.1 Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and may result in an enforcement action; permit termination, revocation and reissuance, or modification; and denial of a permit renewal application.

8.2 Inspection and Entry

The permittee shall allow EPA, or an authorized representative, and/or the permittee's contractor(s)/subcontractor(s), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises at reasonable times where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;

3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), processes, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

8.3 Civil and Criminal Penalties for Violations of Permit Conditions

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

The Clean Water Act provides that any person who violates Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act, or any permit condition or limitation implementing such section, or any requirement imposed in an approved pretreatment program and any person who violates any Order issued by EPA under Section 301(a) of the Act, shall be subject to a civil penalty not to exceed \$25,000 per day for each violation. Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, EPA has raised the statutory maximum penalty for such violations to \$37,500 per day for each such violation. 74 Fed. Reg. 626 (Jan. 7, 2009). The Clean Water Act also provides for an action for appropriate relief including a permanent or temporary injunction.

Any person who negligently violates Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, any permit condition or limitation implementing any such section, shall be punished by a criminal fine of not less than \$5,000 nor more than \$50,000 per day of such violation, or by imprisonment for not more than 3 years, or by both. Any person who knowingly violates any permit condition or limitation implementing Section 301, 302, 305, 307, 308, 318, or 405 of the Clean Water Act, and who knows at the time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000, or by imprisonment of not more than 15 years, or by both.

8.4 Duty to Mitigate

The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

In the event that the permittee or permitting authority determines that discharges are causing or contributing to a violation of applicable WQS, the permittee shall take corrective action to eliminate the WQS exceedance or correct the issues and/or problems by requiring the party or parties responsible for the alleged violation(s) comply with Part I.C.1 (Limitations to Coverage) of this permit. The methods used to correct the WQS exceedances shall be documented in subsequent annual reports and in revisions to the Stormwater Management Program Plan.

8.5 Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this permit;
2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;
3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;
4. Information newly acquired by the Agency, including but not limited to the results of the studies, planning, or monitoring described and/or required by this permit;
5. Material and substantial facility modifications, additions, and/or expansions;
6. Any anticipated change in the facility discharge, including any new significant industrial discharge or changes in the quantity or quality of existing industrial discharges that will result in new or increased discharges of pollutants; or
7. A determination that the permitted activity endangers human health or the environment and that it can only be regulated to acceptable levels by permit modification or termination.

The effluent limitations expressed in this permit are based on compliance with the District of Columbia's water quality standards in accordance with the Clean Water Act. In the event of a revision of the District of Columbia's water quality standards, this document may be modified by EPA to reflect this revision.

The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition. When a permit is modified, only conditions subject to modification are reopened.

8.6 Retention of Records

The permittee shall continue to retain records of all documents pertinent to this permit not otherwise required herein, including but not limited copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the expiration date of this permit. This period may be extended by request of EPA at any time.

8.7 Signatory Requirements

All Discharge Monitoring Reports, plans, annual reports, certifications or information either submitted to EPA or that this permit requires be maintained by the permittee shall be signed by either a principal executive officer or ranking elected official, or a duly authorized representative of that person. A person is a duly authorized representative only if: (i) the authorization is made in writing by a person described above and submitted to EPA; and (ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for an agency. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new notice satisfying the requirements of this paragraph must be submitted to EPA prior or together with any reports, information, or applications to be signed by an authorized representative.

8.8 Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Act, 33 U.S.C. § 1321.

8.9 District Laws, Regulations and Ordinances

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable District law, regulation or ordinance identified in the SWMP. In the case of “exemptions and waivers” under District law, regulation or ordinance, Federal law and regulation shall be controlling.

8.10 Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

8.11 Severability

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

8.12 Transfer of Permit

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred to another person if:

1. The current permittee notifies the EPA, in writing of the proposed transfer at least 30 days in advance of the proposed transfer date;
2. The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
3. The EPA does not notify the current permittee and the new permittee of intent to modify, revoke and reissue, or terminate the permit and require that a new application be submitted.

8.13 Construction Authorization

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

8.14 Historic Preservation

During the design stage of any project by the Government of the District of Columbia within the scope of this permit that may include ground disturbance, new and existing or retrofit construction, or demolition of a structure, the permittee shall notify the Historic Preservation liaison and provide the liaison planning documents for the proposed undertaking. The documents shall include project location; scope of work or conditions; photograph of the area/areas to be impacted and the methods and techniques for accomplishing the undertaking. Depending on the complexity of the undertaking, sketches, plans and specifications shall also be submitted for review. The documentation will enable the liaison to assess the applicability of compliance procedures associated with Section 106 of the National Historic Preservation Act. Among the steps in the process are included:

1. The determination of the presence or absence of significant historic properties (architectural, historic or prehistoric). This can include the evaluation of standing structures and the determination of the need for an archaeological survey of the project area.
2. The evaluation of these properties in terms of their eligibility for nomination to the National Register of Historic Places.
3. The determination of the effect that the proposed undertaking will have on these properties.
4. The development of mitigating measures in conjunction with any anticipated effects.

All such evaluations and determinations will be presented to the permittee for its concurrence.

If an alternate Historic Preservation procedure is approved by EPA in writing during the term of this permit, the alternate procedure will become effective after its approval.

8.15 Endangered Species

The U.S. Fish and Wildlife Service (FWS) has indicated that Hay's Spring Amphipod, a Federally listed endangered species, occurs at several locations in the District of Columbia. The National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) has indicated that the endangered shortnose sturgeon occurs in the Potomac River drainage and may occur within the District of Columbia. The FWS and NOAA Fisheries indicate that at the present time there is no evidence that the ongoing stormwater discharges covered by this permit are adversely affecting these Federally-listed species. Stormwater discharges, construction, or any other activity that adversely affects a Federally-listed endangered or threatened species are not authorized under the terms and conditions of this permit.

The monitoring required by this permit will allow further evaluation of potential effects on these threatened and endangered species once monitoring data has been collected and analyzed. EPA requires that the permittee submit to NOAA Fisheries, at the same time it submits to EPA, the Annual Outfall Discharge Monitoring Report of the monitoring data which will be used by EPA and NOAA Fisheries to further assess effects on endangered or threatened species. If this data indicates that it is appropriate, requirements of this NPDES permit may be modified to prevent adverse impacts on habitats of endangered and threatened species.

The above-referenced Report of monitoring data is required under this permit to be sent on an annual basis to:

The United States Environmental Protection Agency
Region III (3WP41)
Water Protection Division
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

National Marine Fisheries Service/Northeast Region
Protected Resource Division
55 Great Republic Drive
Gloucester, Massachusetts 01930-2276

8.16 Toxic Pollutants

If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under section 307(a) of the Act, 33 U.S.C. § 1317(a), for a toxic pollutant which is present in the discharge and such standard or prohibition

is more stringent than any limitation for such pollutant in this permit, the permittee shall comply with such standard or prohibition even if the permit has not yet been modified to comply with the requirement.

8.17 Bypass

8.17.1 Bypass not exceeding limitations. In accordance with 40 C.F.R. § 122.41(m), the permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation.

8.17.2 Notice

1. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior notice at least ten days before the date of the bypass. See 40 C.F.R. § 122.41(m)(3)(i).
2. Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required by 40 C.F.R. § 122.41(l)(6) (24-hour notice). See 40 C.F.R. § 122.41(m)(3)(ii).

8.17.3 Prohibition of bypass. See 40 C.F.R. § 122.41(m)(4).

1. Bypass is prohibited, and EPA may take enforcement action against the permittee for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage as defined herein;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. The permittee submitted notices as required herein.
2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above.

8.18 Upset

Effect of an upset: An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of 40 C.F.R. § 122.41(n) are met.

8.19 Reopener Clause for Permits

The permit shall be modified or revoked and reissued, including but not limited to, for any of the following reasons:

1. To incorporate any applicable effluent standard or limitation issued or approved under Sections 301, 304, or 307 of the Clean Water Act, and any other applicable provision, such as provided for in the Chesapeake Bay Agreements based on water quality considerations, and if the effluent standard or limitation so issued or approved:
 - a. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - b. Controls any pollutant not limited in the permit. The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the Act then applicable; or
2. To incorporate additional controls that are necessary to ensure that the permit effluent limits are consistent with any applicable TMDL WLA allocated to the discharge of pollutants from the MS4 or to incorporate milestones and schedules of a TMDL Implementation Plan; or
3. As specified in 40 C.F.R. §§ 122.44(c), 122.62, 122.63, 122.64, and 124.5.

8.20 Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, it must apply for and obtain a new permit. The application shall be submitted at least 180 days before the expiration date of this permit. EPA may grant permission to submit an application less than 180 days in advance but no longer than the permit expiration date. In the event that a timely and complete reapplication has been submitted and EPA is unable through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

9. **PERMIT DEFINITIONS**

Terms that are not defined herein shall have the meaning accorded them under section 502 of the Clean Water Act, 33 U.S.C. §§ 1251 *et seq.*, or its implementing regulations, 40 C.F.R. Part 122.

“Annual Report” refers to the consolidated Annual Report that the permittee is required to submit annually.

"Benchmark" as used in this permit is a quantifiable goal or target to be used to assess progress toward "milestones" (see separate definition) and WLAs, such as a numeric goal for BMP implementation. If a benchmark is not met, the permittee should take appropriate corrective action to improve progress toward meeting milestones or other objectives. Benchmarks are intended as an adaptive management aid and generally are not considered to be enforceable.

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. See 40 C.F.R. § 122.41(m)(1)(i).

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub.L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (6-483 and Pub. L. 97-117, 33 U.S.C. §§ 1251 *et seq.*

"Development" is the undertaking of any activity that disturbs a surface area greater than or equal to 5,000 square feet, including new development projects and redevelopment projects. For purposes of Parts 4.1.1 through 4.1.4 of the permit the requirements apply to discharges from sites for which design or construction commenced after 18 months from the effective date of this permit or as required by District of Columbia law, whichever is sooner. The permittee may exempt development projects receiving site plan approval prior to this date from these requirements.

"Director" means the Regional Administrator of USEPA Region 3 or an authorized representative.

"Discharge" for the purpose of this permit, unless indicated otherwise, refers to discharges from the Municipal Separate Storm Sewer System (MS4).

"Discharge Monitoring Report", "DMR" or "Outfall Discharge Monitoring Report" includes the monitoring and assessment of controls identified in Section 5 herein.

"EPA" means USEPA Region 3.

"Green Roof" is a low-maintenance roof system that stores rainwater where the water is taken up by plants and/or transpired into the air.

"Green Technology Practices" means stormwater management practices that are used to mimic pre-development site hydrology by using site design techniques that retain stormwater on-site through infiltration, evapotranspiration, harvest and use.

"Guidance" means assistance in achieving a particular outcome or objective.

"Illicit connection" means any man-made conveyance connecting an illicit discharge directly to a municipal separate storm sewer.

"Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of stormwater except discharges pursuant to an NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities, pursuant to 40 C.F.R. § 122.26(b)(2).

"Impaired Water" (or "Water Quality Impaired Water" or "Water Quality Limited Segment"): A water is impaired for purposes of this permit if it has been identified by the District or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called "water quality limited segments" under 40 C.F.R. 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

"Landfill" means an area of land or an excavation in which wastes are placed for permanent disposal, and which is not a land application unit (i.e., an area where wastes are applied onto or incorporated into the soil surface [excluding manure spreading operations] for treatment or disposal), surface impoundment, injection well, or waste pile.

"Large or Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either: (1) located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 C.F.R. Part 122); or (2) located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 C.F.R. Part 122); or (3) owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"Milestone" as used in this permit is an interim step toward attainment of a WLA that upon incorporation into the permit will become an enforceable limit or requirement to be achieved by a stated date. A milestone should be expressed in numeric terms, i.e. as a volume reduction, pollutant load, specified implementation action or set of actions or other objective metric, when possible and appropriate.

"MS4" refers to either a Large or Medium Municipal Separate Storm Sewer System.

"Municipal Separate Storm Sewer" means a conveyance, or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (1) owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State Law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes; (2) Designed or used to collect or convey stormwater (including storm drains, pipes, ditches, etc.); (3) not a combined sewer; and (4) not part of a Publicly-Owned Treatment Works as defined at 40 C.F.R. § 122.2.

“Offset” means a unit of measurement, either used as monetary or non-monetary compensation, as a substitute or replacement for mitigation of a stormwater control practice that has been determined to be impracticable to implement.

“Performance measure” means for purposes of this permit, a minimum set of criteria for evaluating progress toward meeting a standard of performance.

“Performance standard” means for purposes of this permit, a cumulative measure or provision for attainment of an outcome or objective.

"Permittee" refers to the Government of the District of Columbia.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff.

“Pollutant of concern” means a pollutant in an MS4 discharge that may cause or contribute to the violation of a water quality criterion for that pollutant downstream from the discharge.

“Pre-Development Condition” means the combination of runoff, infiltration and evapotranspiration rates, volumes, durations and temperatures that typically existed on the site with natural soils and vegetation before human-induced land disturbance occurred. In the context of requirements in this permit the environmental objective is a stable, natural hydrologic site condition that protects or restores to the degree relevant for that site, stable hydrology in the receiving water, which will not necessarily be the hydrologic regime of that receiving water prior to any human disturbance in the watershed.

“Retention” means the use of soils, vegetation, water harvesting and other mechanisms and practices to retain a target volume of stormwater on a given site through the functions of: pore space and surface ponding storage; infiltration; reuse, and/or evapotranspiration.

“Retrofit” means improvement in a previously developed area that results in reduced stormwater discharge volumes and pollutant loads and/or improvement in water quality over current conditions.

“Stormwater” means the flow of surface water which results from, and which occurs immediately following, a rainfall event, snow melt runoff, and surface runoff and drainage.

“Stormwater management” means (1) for quantitative control, a system of vegetative or structural measures, or both, which reduces the increased volume and rate of surface runoff caused by man-made changes to the land; and (2) for qualitative control, a system of vegetative, structural, and other measures which reduce or eliminate pollutants which might otherwise be carried by surface runoff.

“SWMP” is an acronym for Stormwater Management Program. For purposes of this permit, the term includes all stormwater activities described in the District’s SWMP Plan updated February 19, 2009, or any subsequent update, and all other strategies, plans, documents, reports, studies, agreements and related correspondences developed and used pursuant to the requirements of this permit.

“Severe property damage” means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. See 40 C.F.R. § 122.41(m)(1)(ii).

“Total Maximum Daily Load (TMDL) Units” means for purposes of this permit, the sum of individual waste load allocations (WLAs) and natural background. Unless specifically permitted otherwise in an EPA-approved TMDL report covered under the permit, TMDLs are expressed in terms of mass per time, toxicity or other appropriate measure such as pollutant pounds of a total average annual load.

“TMDL Implementation Plan” means for purposes of this permit, a plan and subsequent revisions/updates to that plan that are designed to demonstrate how to achieve compliance with applicable waste load allocations as set forth in the permit requirements described in Section 4.10.3.

“Stormwater Management Program (SWMP)” is a modified and improved SWMP based on the existing SWMP and on information in each of the Annual Reports/Discharge Monitoring Reports. The purpose of the SWMP is to describe the list of activities that need to be done to meet the requirements of the Clean Water Act, an explanation as to why these activities will meet the Clean Water Act requirements, and a schedule for those activities.

“Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. See 40 C.F.R. § 122.41(n)(1).

“Waste pile” means any non-containerized accumulation of solid, nonflowing waste.

“Water quality standards” refers to the District of Columbia’s Surface and Ground Water Quality Standards codified at Code of District of Columbia Regulations §§ 21-1100 *et seq.*, which are effective on the date of issuance of the permit and any subsequent amendments which may be adopted during the life of this permit.

“Waters of the United States” is defined at 40 C.F.R. § 122.2.